

1 Comp. Loc. Engine

- ◆ ⇒ ["1.1 2.0L TFSI CAEB/CAED Overview", page 1](#)
- ◆ ⇒ ["1.2 2.0L TFSI GEN III CYNB Overview", page 4](#)
- ◆ ⇒ ["1.3 3.0L TFSI CGXB/CTUA Overview ", page 9](#)
- ◆ ⇒ ["1.4 3.0L TFSI CREC Overview", page 13](#)
- ◆ ⇒ ["1.5 3.0L TDI CPNB Overview", page 18](#)
- ◆ ⇒ ["1.6 4.0L FSI CEUC/CTGE/CWUC Overview", page 22](#)
- ◆ ⇒ ["1.7 Exhaust System ", page 27](#)
- ◆ ⇒ ["1.8 Fuel Pump and Sensors ", page 34](#)

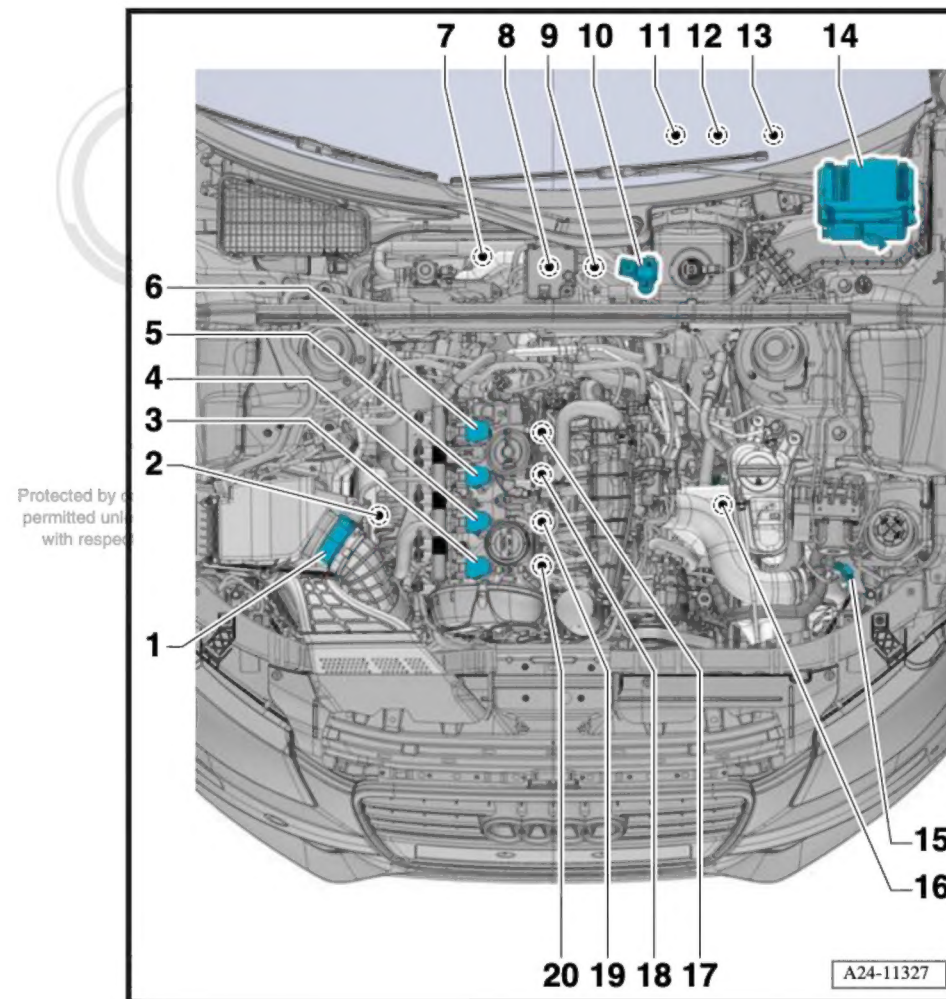
1.1 2.0L TFSI CAEB/CAED Overview

- ◆ ⇒ ["1.1.1 2.0L TFSI CAEB/CAED Engine Compartment", page 1](#)
- ◆ ⇒ ["1.1.2 2.0L TFSI CAEB/CAED Left Side", page 3](#)
- ◆ ⇒ ["1.1.3 2.0L TFSI CAEB/CAED Right Side", page 3](#)

1.1.1 2.0L TFSI CAEB/CAED Engine Compartment

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- 1 - Mass Airflow Sensor -G70-
- 2 - Right Electro-Hydraulic Engine Mount Solenoid Valve -N145-
 - ☐ Optional based on production date.
- 3 - Ignition Coil 1 with Power Output Stage -N70-
- 4 - Ignition Coil 2 with Power Output Stage -N127-
- 5 - Ignition Coil 3 with Power Output Stage -N291-
- 6 - Ignition Coil 4 with Power Output Stage -N292-
- 7 - Transmission Neutral Position Sensor -G701-
 - ☐ Optional based on production date and for vehicles with a manual transmission
- 8 - Transmission Coolant Valve -N488-
 - ☐ For Vehicles with a manual transmission and transmission fluid heater
- 9 - Transmission Range Gear Recognition Switch -F208-
 - ☐ Optional based on production date and for vehicles with a manual transmission
- 9 - Gear Recognition Sensor -G604-
 - ☐ Optional based on production date and for vehicles with a manual transmission
- 10 - Brake Booster Pressure Sensor -G294-
 - ☐ Optional based on vehicle equipment
- 11 - Accelerator Pedal Position Sensor -G79-
- 11 - Accelerator Pedal Position Sensor 2 -G185-
- 11 - Accelerator pedal module -GX2-
- 12 - Brake Lamp Switch -F-
- 13 - Clutch Position Sensor -G476-
- 13 - Clutch Pedal Switch -F36-
- 13 - Clutch Pedal Starter Interlock Switch -F194-
- 14 - Engine Control Module J623
- 15 - Charge Air Pressure Sensor -G31-
- 16 - Left Electrohydraulic Engine Mount Solenoid Valve -N144-
 - ☐ Optional based on production date.
- 17 - Cylinder 4 Fuel Injector -N33-
- 18 - Cylinder 3 Fuel Injector -N32-



19 - Cylinder 2 Fuel Injector -N31-

20 - Cylinder 1 Fuel Injector -N30-

1.1.2 2.0L TFSI CAEB/CAED Left Side

1 - Oil Pressure Regulation Valve -N428-

2 - After-Run Coolant Pump -V51-

3 - Engine Coolant Temperature Sensor -G62-

4 - Oil Pressure Switch -F22-

5 - Reduced Oil Pressure Switch -F378-

□ Depending on the engine installed, there are different installed positions

6 - Intake Manifold Runner Position Sensor -G336-

7 - Fuel Pressure Sensor -G247-

8 - Intake Air Temperature Sensor -G42-

9 - Camshaft Position Sensor -G40-

10 - Throttle Valve Control Module -J338-

10 - Throttle Drive (Power Accelerator Actuation) -G186-

10 - Angle Sensor 1 For Throttle Drive (Power Accelerator Actuation) -G187-

10 - Angle Sensor 2 For Throttle Drive (Power Accelerator Actuation) -G188-

10 - Throttle valve control module -GX3-

11 - EVAP Canister Purge Regulator Valve 1 -N80-

12 - Fuel Pressure Regulator Valve -N276-

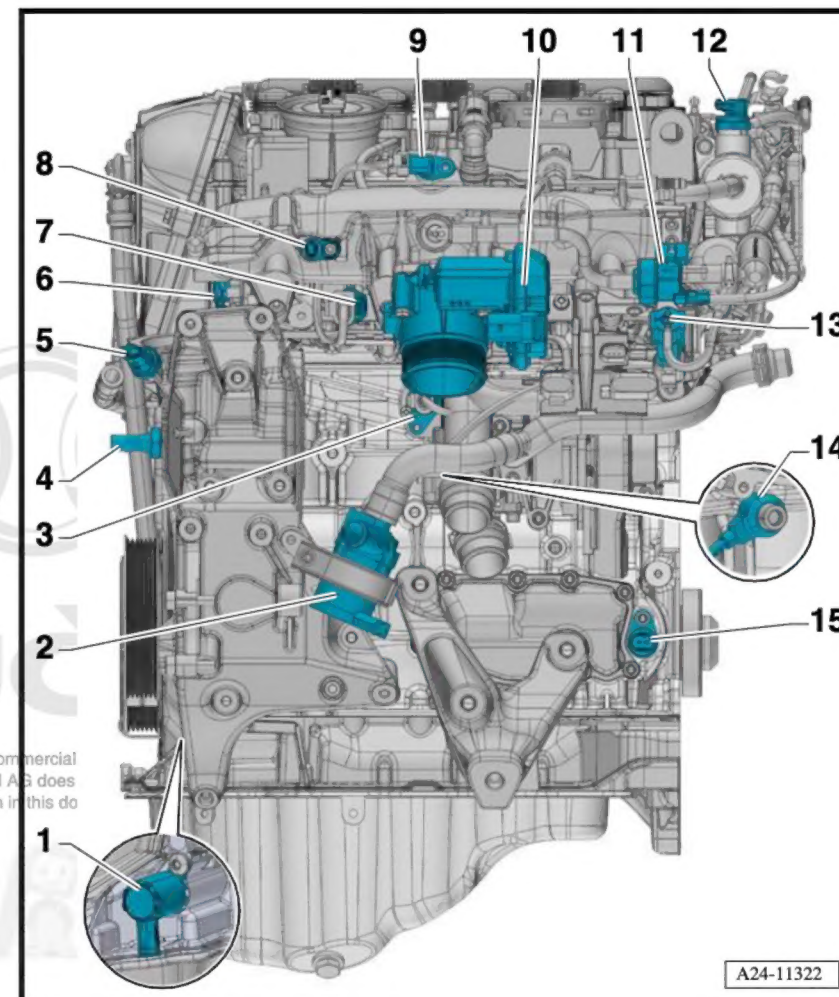
12 - Low fuel pressure sensor -G410-

12 - Fuel metering valve -N290-

13 - Intake Manifold Runner Control Valve -N316-

14 - Knock Sensor 1 -G61-

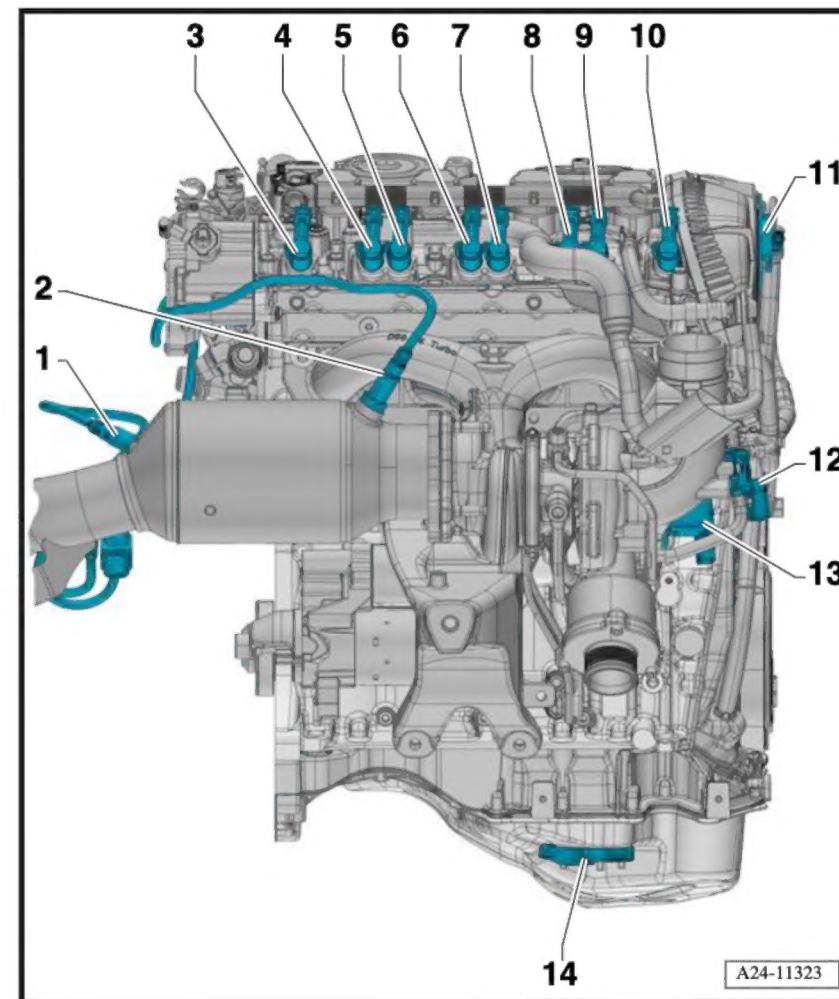
15 - Engine Speed Sensor -G28-



1.1.3 2.0L TFSI CAEB/CAED Right Side

- 1 - Oxygen Sensor after Three Way Catalytic Converter G130
- 1 - Heater For Oxygen Sensor 1 after Catalytic Converter Z29
- 2 - Heated Oxygen Sensor G39
- 2 - Oxygen Sensor Heater Z19
- 3 - Cam Adjustment Actuator 8 -F373- (for cylinder 4)
- 4 - Cam Adjustment Actuator 7 -F372- (for cylinder 4)
- 5 - Cam Adjustment Actuator 5 -F370- (for cylinder 3)
- 6 - Cam Adjustment Actuator 6 -F371- (for cylinder 3)
- 7 - Cam Adjustment Actuator 4 -F369- (for cylinder 2)
- 8 - Cam Adjustment Actuator 3 -F368- (for cylinder 2)
- 9 - Cam Adjustment Actuator 1 -F366- (for cylinder 1)
- 10 - Cam Adjustment Actuator 2 -F367- (for cylinder 1)
- 11 - Camshaft Adjustment Valve 1 -N205-
- 12 - Wastegate Bypass Regulator Valve -N75-
- 13 - Turbocharger Recirculation Valve -N249-
- 14 - Oil Level Thermal Sensor -G266-

Protected by Copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



1.2 2.0L TFSI GEN III CYNB Overview

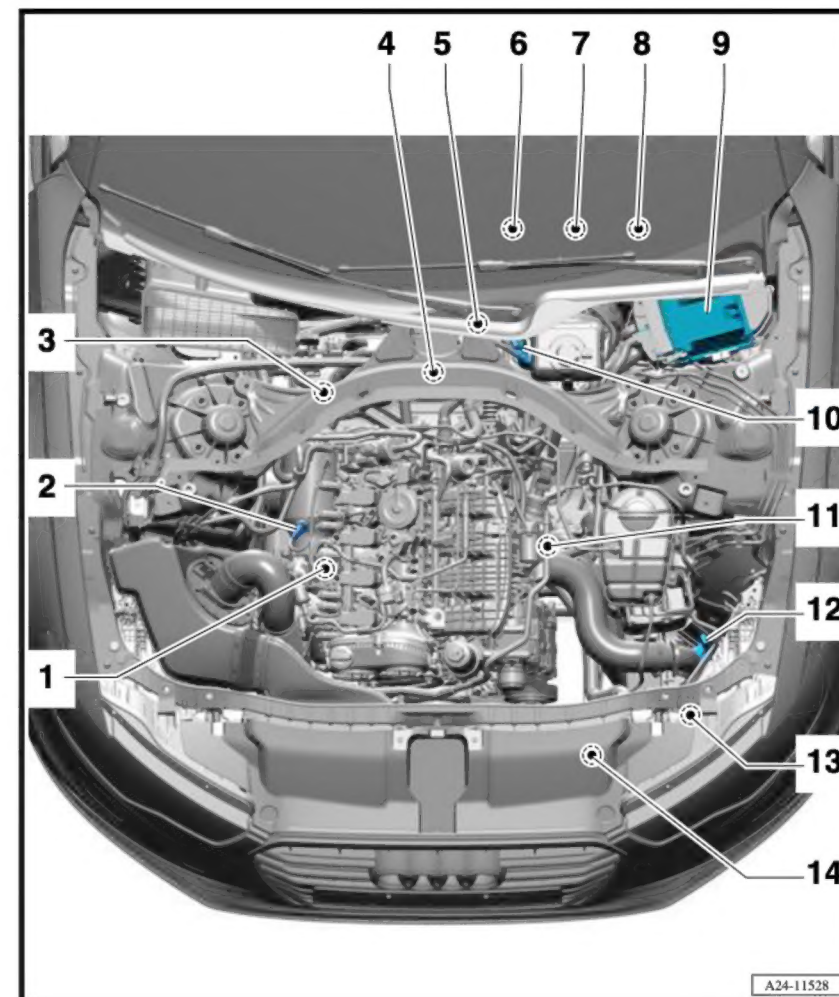
- ◆ ⇒ ["1.2.1 2.0L TFSI GEN III CYNB Engine Comp.", page 5](#)
- ◆ ⇒ ["1.2.2 2.0L TFSI GEN III CYNB Top", page 5](#)
- ◆ ⇒ ["1.2.3 2.0L TFSI GEN III CYNB Left Side", page 6](#)
- ◆ ⇒ ["1.2.4 2.0L TFSI GEN III CYNB Right Side", page 7](#)

◆ ⇒ "1.2.5 2.0L TFSI GEN III CYNB Front", page 8

1.2.1 2.0L TFSI GEN III CYNB Engine Comp.

- 1 - Right electrohydraulic engine mount solenoid valve -N145-
- 2 - Heated oxygen sensor G39
- 3 - Oxygen sensor after three way catalytic converter G130
- 4 - Coolant recirculation pump -V50-
- 5 - Gear recognition sensor -G604-
- 6 - Accelerator pedal position sensor -G79-
- 6 - Accelerator pedal position sensor 2 -G185-
- 7 - Brake lamp switch -F-
- 8 - Clutch position sensor -G476-
- 9 - Engine control module J623
- 10 - Brake booster pressure sensor -G294-
- 11 - Left electrohydraulic engine mount solenoid valve -N144-
- 12 - Charge air pressure sensor -G31-
- 13 - After-run coolant pump -V51-
- 14 - Engine coolant temperature sensor on radiator outlet -G83-

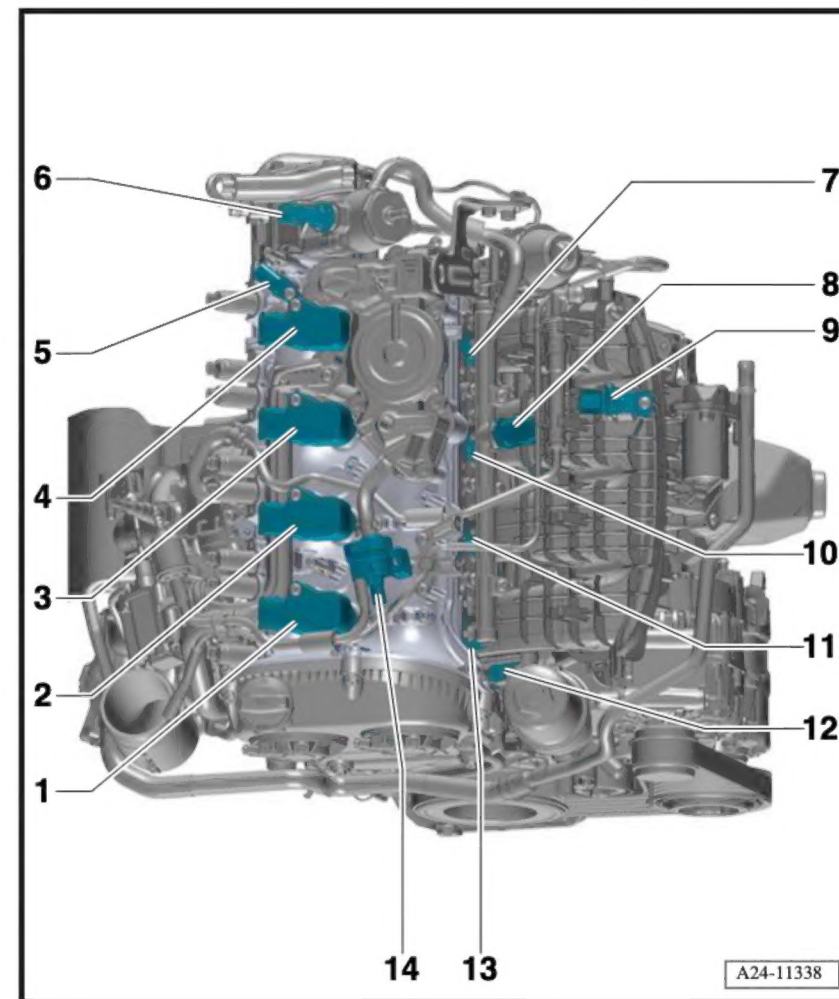
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without the prior written consent of AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



1.2.2 2.0L TFSI GEN III CYNB Top

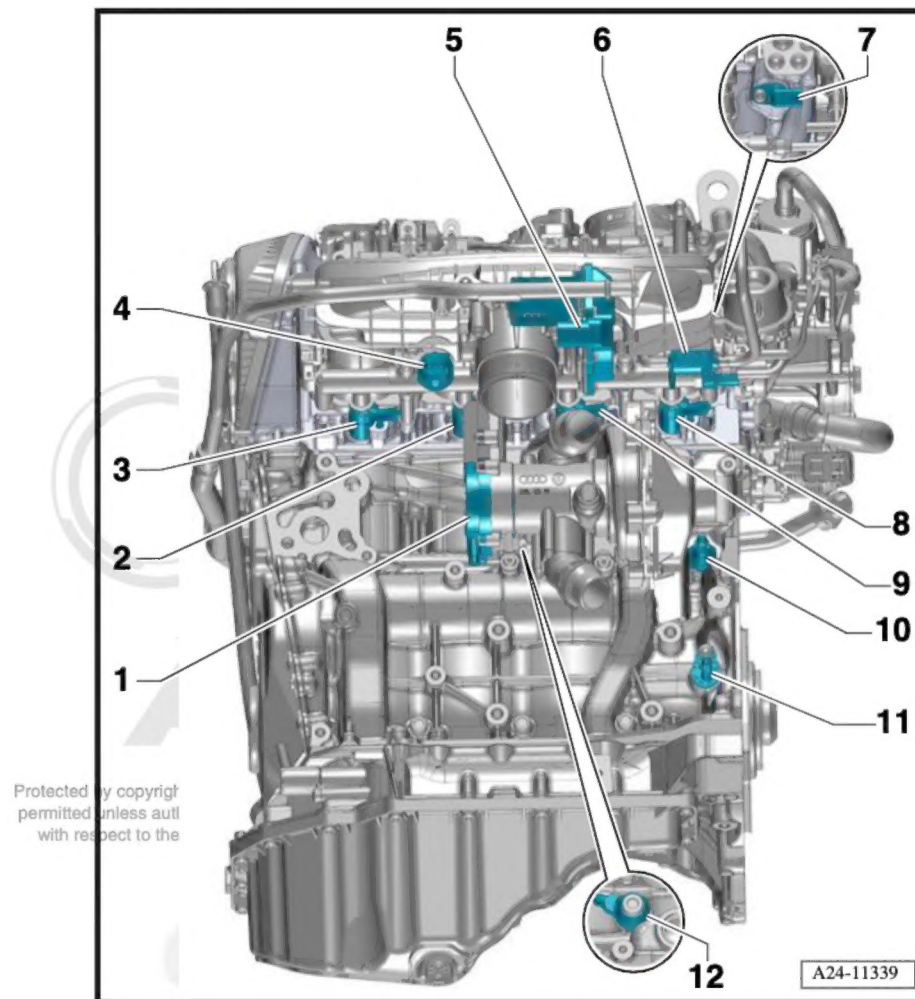
- 1 - Ignition coil 1 with power output stage -N70-
- 2 - Ignition coil 2 with power output stage -N127-
- 3 - Ignition coil 3 with power output stage -N291-
- 4 - Ignition coil 4 with power output stage -N292-
- 5 - Camshaft position sensor 3 -G300-
- 6 - Fuel metering valve -N290-
- 7 - Cylinder 4 fuel injector 2 -N535-
- 8 - Low fuel pressure sensor -G410-
- 9 - Intake air temperature sensor -G42-
- 9 - Manifold absolute pressure sensor -G71-
- 10 - Cylinder 3 fuel injector 2 -N534-
- 11 - Cylinder 2 fuel injector 2 -N533-
- 12 - Intake manifold runner position sensor -G336-
- 13 - Cylinder 1 fuel injector 2 -N532-
- 14 - EVAP canister purge regulator valve 1 -N80-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



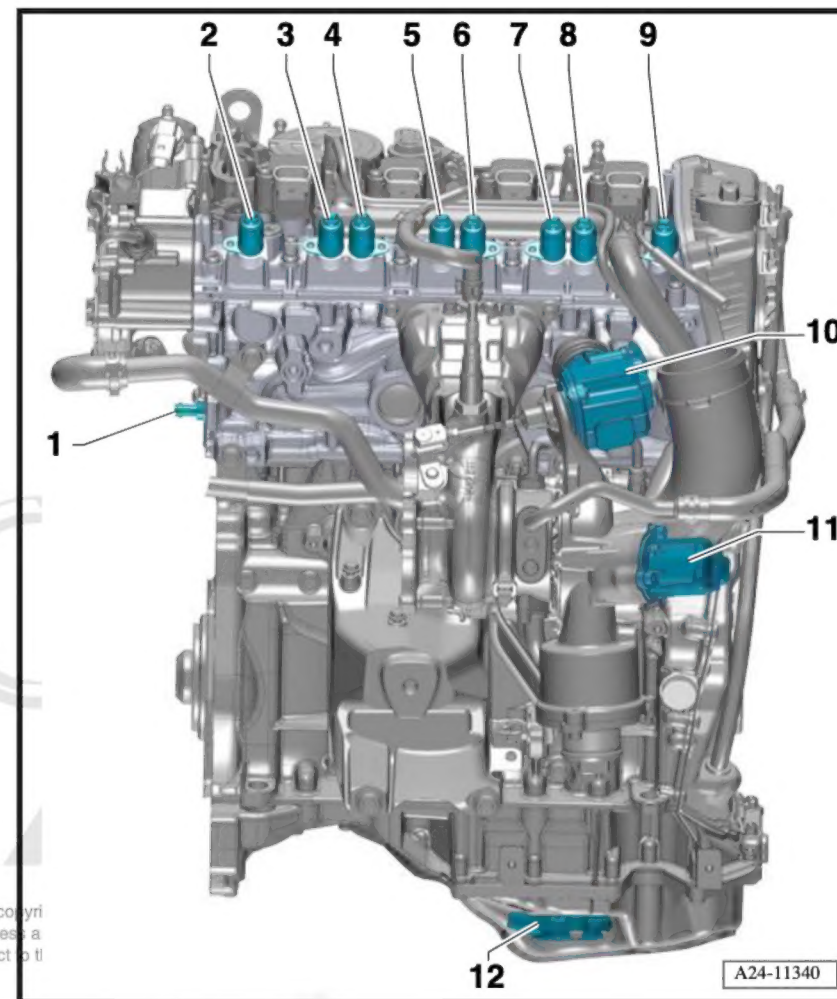
1.2.3 2.0L TFSI GEN III CYNB Left Side

- 1 - Engine temperature control actuator -N493-
- 2 - Cylinder 2 fuel injector -N31-
- 3 - Cylinder 1 fuel injector -N30-
- 4 - Fuel pressure sensor -G247-
- 5 - Throttle valve control module -J338-
- 5 - EPC throttle drive -G186-
- 5 - EPC throttle drive angle sensor 1 -G187-
- 5 - EPC throttle drive angle sensor 2 -G188-
- 5 - Throttle valve control module -GX3-
- 6 - Intake manifold runner control valve -N316-
- 7 - Camshaft position sensor -G40-
- 8 - Cylinder 4 fuel injector -N33-
- 9 - Cylinder 3 fuel injector -N32-
- 10 - Oil pressure switch, level 3 -F447-
- 11 - Engine speed sensor -G28-
- 12 - Knock sensor 1 -G61-



1.2.4 2.0L TFSI GEN III CYNB Right Side

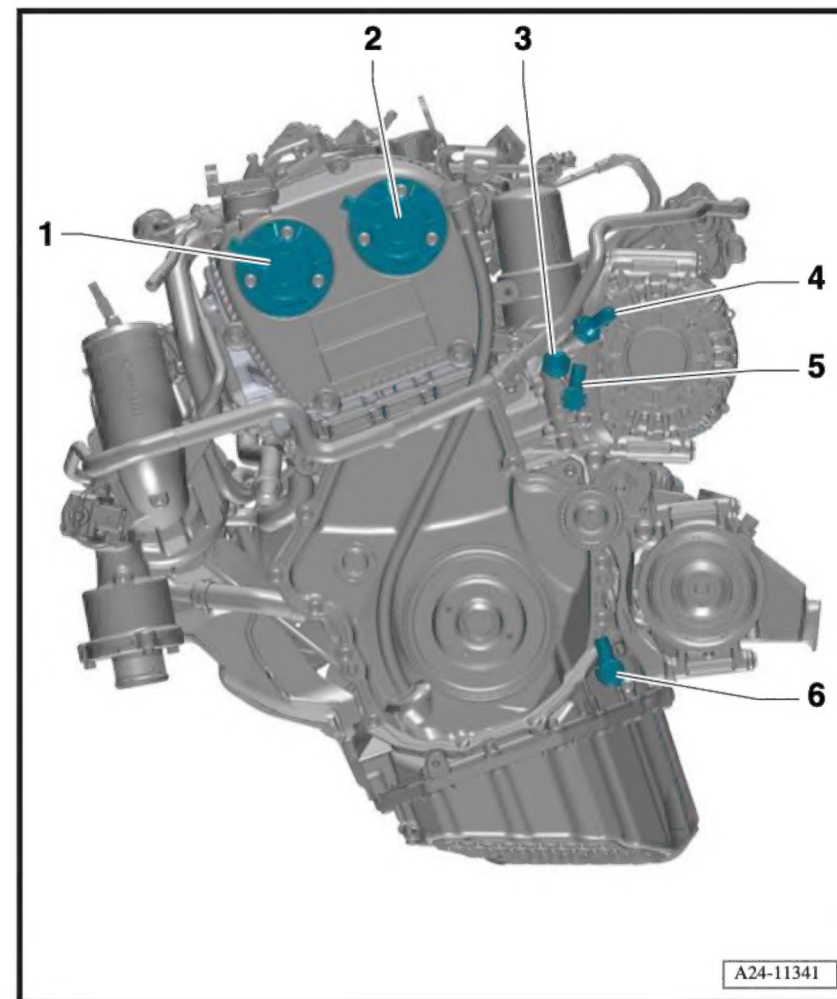
- 1 - Engine coolant temperature sensor -G62-
- 2 - Cam adjustment actuator 8 -F373-
- 3 - Cam adjustment actuator 7 -F372-
- 4 - Cam adjustment actuator 6 -F371-
- 5 - Cam adjustment actuator 5 -F370-
- 6 - Cam adjustment actuator 4 -F369-
- 7 - Cam adjustment actuator 3 -F368-
- 8 - Cam adjustment actuator 2 -F367-
- 9 - Cam adjustment actuator 1 -F366-
- 10 - Charge pressure actuator -V465-
- Charge pressure actuator position sensor -G581-
- 11 - Turbocharger recirculation valve -N249-
- 12 - Oil level thermal sensor -G266-



1.2.5 2.0L TFSI GEN III CYNB Front

- 1 - Exhaust camshaft adjustment valve 1 -N318-
- 2 - Camshaft adjustment valve 1 -N205-
- 3 - Oil pressure switch -F22-
- 4 - Reduced oil pressure switch -F378-
- 5 - Piston cooling nozzle control valve -N522-
- 6 - Oil pressure regulation valve -N428-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



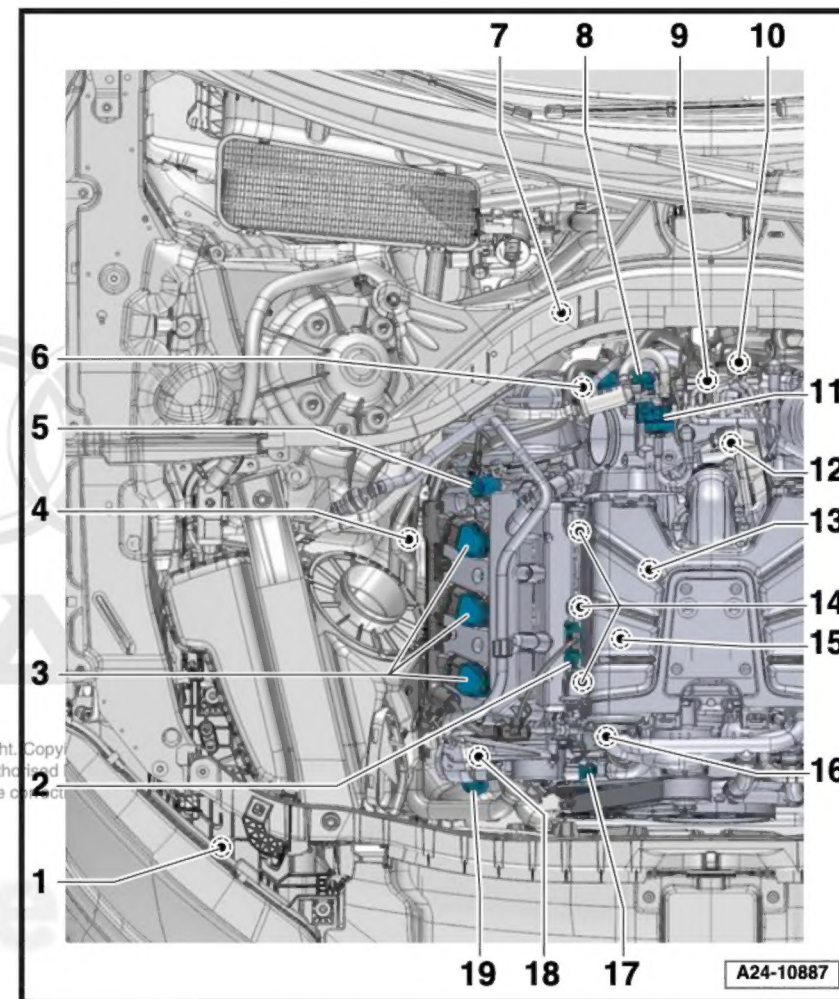
A24-11341

1.3 3.0L TFSI CGXB/CTUA Overview

- ◆ ⇒ ["1.3.1 3.0L TFSI CGXB/CTUA Engine Comp., Right", page 9](#)
- ◆ ⇒ ["1.3.2 3.0L TFSI CGXB/CTUA Engine Comp., Left", page 11](#)

1.3.1 3.0L TFSI CGXB/CTUA Engine Comp., Right

- 1 - Secondary Air Pump Motor -V101-
- 2 - Charge Air Pressure Sensor -G31-
- 2 - Intake Manifold Temperature Sensor -G72-
- 3 - Ignition coil 1 with power output stage -N70-
- 3 - Ignition coil 2 with power output stage -N127-
- 3 - Ignition coil 3 with power output stage -N291-
- 4 - Heated Oxygen Sensor (HO2S) G39
- 4 - Oxygen sensor heater Z19
- 5 - Camshaft Adjustment Valve 1 -N205-
- 6 - Electrical Connectors for oxygen sensors
- 7 - Oxygen Sensor (O2S) after Three Way Catalytic Converter (TWC) G130
- 7 - Heater for oxygen sensor 1 after catalytic converter Z29
- 8 - Throttle Valve Control Module -J338-
- 9 - Intake Air Temperature (IAT) Sensor -G42-
- 9 - Manifold Absolute Pressure (MAP) Sensor -G71-
- 10 - Secondary Air Injection (AIR) Sensor 1 -G609-
- 11 - Evaporative Emission (EVAP) Canister Purge Regulator Valve 1 -N80-
- 12 - Engine Speed (RPM) Sensor -G28-
- 13 - Knock Sensor (KS) 1 -G61-
- 14 - Cylinder 1 fuel injector -N30-
- 14 - Cylinder 2 fuel injector -N31-
- 14 - Cylinder 3 fuel injector -N32-
- 15 - Engine Temperature Control Temperature Sensor -G694-
- 16 - Intake Manifold Runner Position Sensor -G336-
- 17 - Camshaft Position (CMP) Sensor -G40-
- 18 - Fuel Metering Valve -N290-
- 19 - Low Fuel Pressure Sensor -G410-



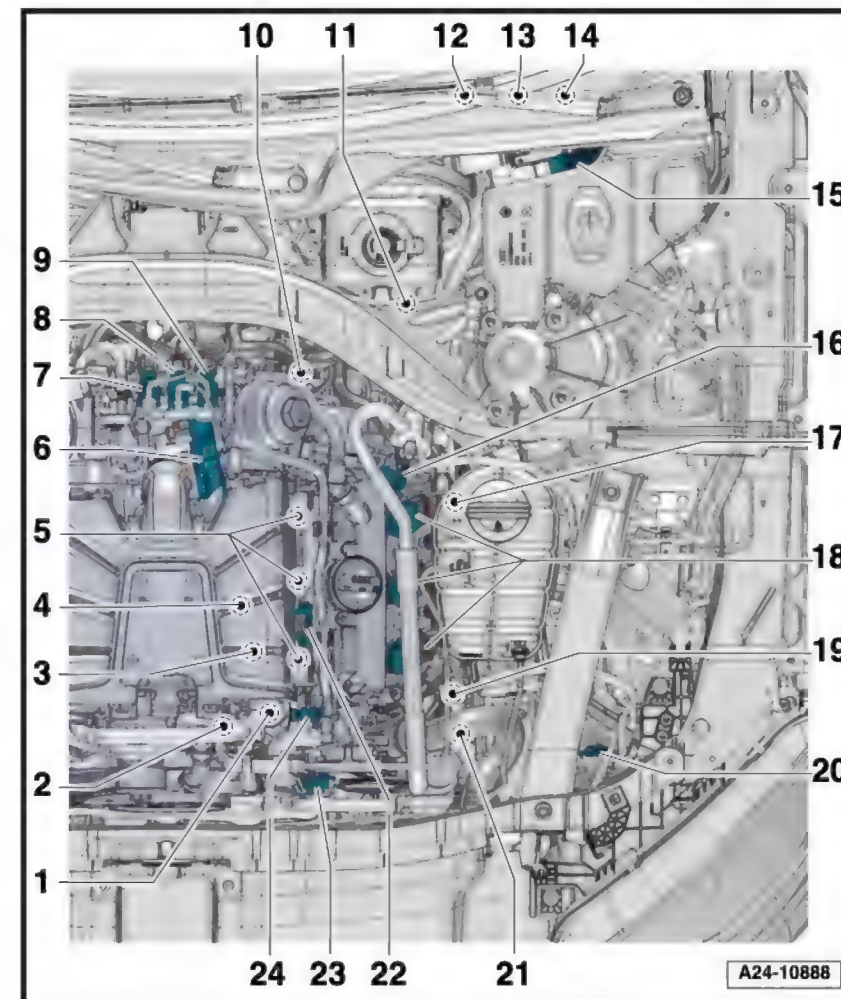
1.3.2 3.0L TFSI CGXB/CTUA Engine Comp., Left

Audi

Bitte nicht kopieren! Copying for private use is permitted, in particular when it
concerns repair and maintenance. © 2019 Audi AG. All rights reserved. Audi AG
will not be held responsible for information in this document. Copyright by Audi AG.

et/lin

- 1 - Intake Manifold Runner Position Sensor 2 -G512-
- 2 - Engine Coolant Temperature Sensor -G62-
- 3 - Fuel Pressure Sensor -G247-
- 4 - Knock Sensor (KS) 2 -G66-
- 5 - Cylinder 4 fuel injector -N33-
- 5 - Cylinder 5 fuel injector -N83-
- 5 - Cylinder 6 fuel injector -N84-
- 6 - Control Valve Control Unit -J808-
- 7 - Secondary Air Injection Solenoid Valve -N112-
- 8 - Intake Manifold Runner Control Valve -N316-
- 9 - Secondary Air Injection Solenoid Valve 2 -N320-
- 10 - Electrical Connectors
- 11 - Oxygen Sensor 2 after Catalytic Converter G131
- 11 - Heater for oxygen sensor 2 after catalytic converter Z30
- 12 - Engine Malfunction Lamp
 - ❑ Inside the instrument cluster
- 13 - Accelerator Pedal Position Sensor -G79- /
- 13 - Accelerator Pedal Position Sensor 2 -G185-
- 13 - Accelerator pedal module -GX2-
- 14 - Brake Lamp Switch -F- /
- 14 - Brake Pedal Switch -F47-
- 15 - Engine Control Module (ECM) -J623
- 16 - Camshaft Adjustment Valve 2 -N208-
- 17 - Heated Oxygen Sensor (HO2S) 2 G108
- 17 - Oxygen sensor (O2S) 2 heater Z28
- 18 - Ignition coil 4 with power output stage -N292-
- 18 - Ignition coil 5 with power output stage -N323-
- 18 - Ignition coil 6 with power output stage -N324-
- 19 - Oil Pressure Regulation Valve -N428-



20 - Charge Air Coolant Pump -V188-

21 - After-Run Coolant Pump -V51-

❑ Depending on the vehicle equipment level or the country

22 - Intake Air Temperature Temperature Sensor 2 -G430-

22 - Charge Air Pressure Sensor 2 -G447-

23 - Cylinder Head Coolant Valve -N489-

24 - Camshaft Position Sensor 2 -G163-

1.4 3.0L TFSI CREC Overview

◆ ⇒ [“1.4.1 3.0L TFSI CREC Engine Comp.”, page 13](#)

◆ ⇒ [“1.4.2 3.0L TFSI CREC Top”, page 14](#)

◆ ⇒ [“1.4.3 3.0L TFSI CREC Left Side”, page 16](#)

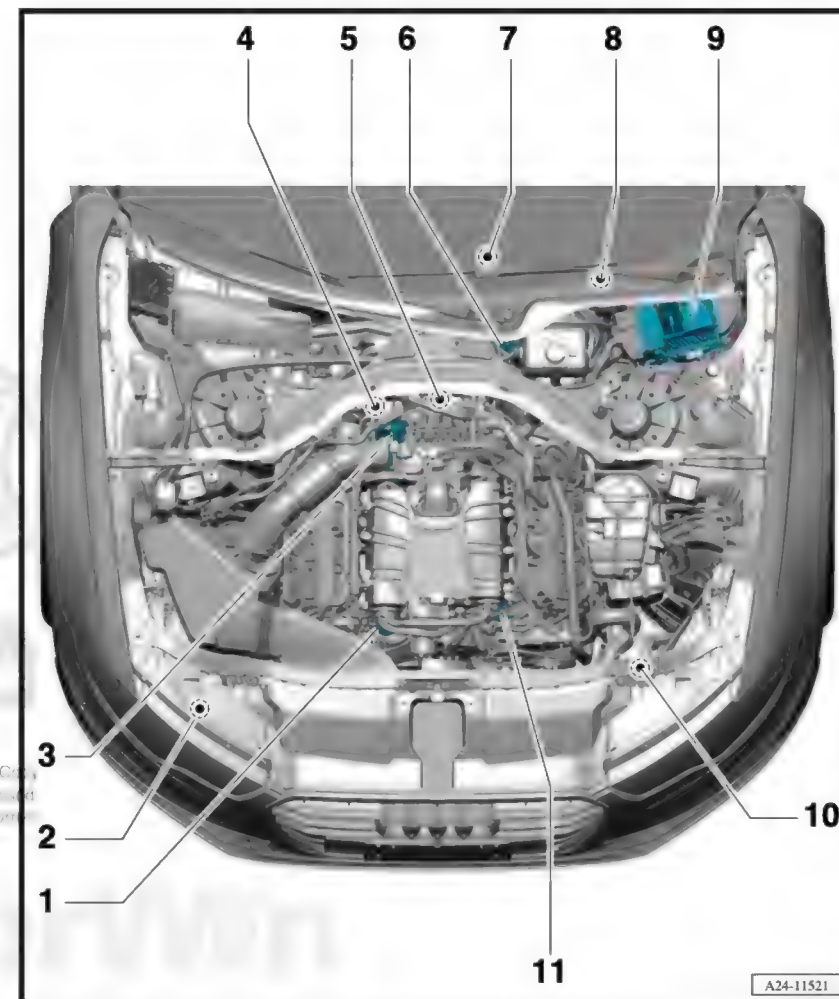
◆ ⇒ [“1.4.4 3.0L TFSI CREC Right Side”, page 16](#)

◆ ⇒ [“1.4.5 3.0L TFSI CREC Supercharger Top”, page 17](#)

1.4.1 3.0L TFSI CREC Engine Comp.

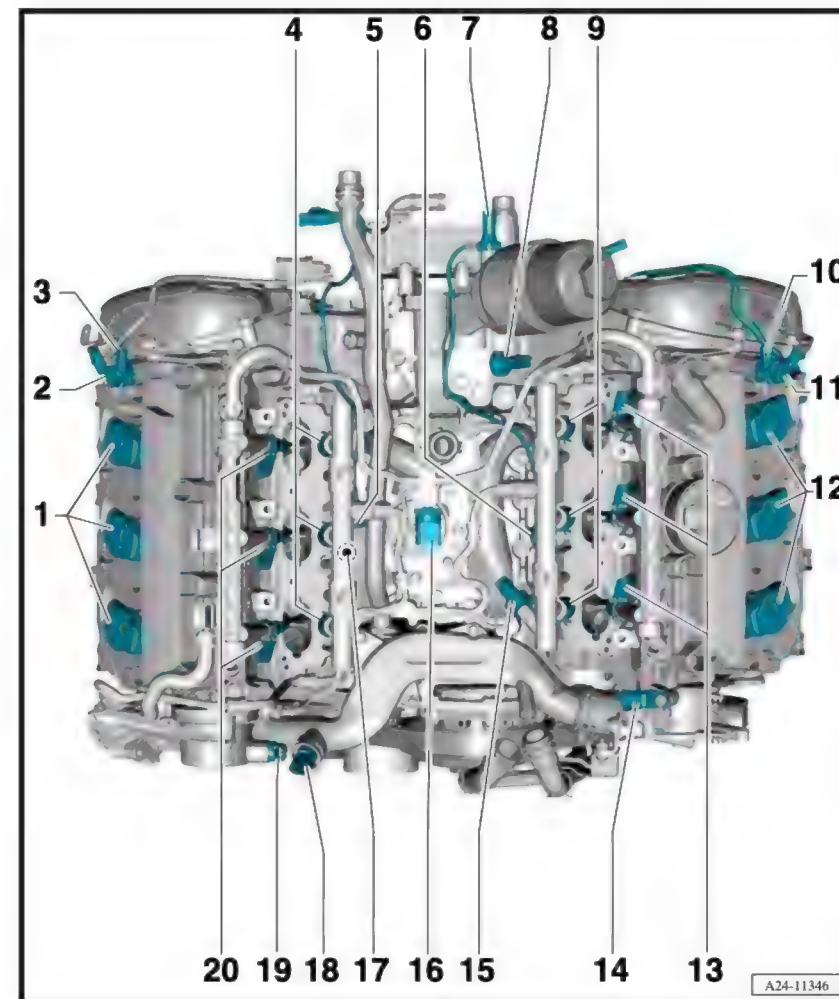


- 1 - Intake manifold runner position sensor -G336-
- 2 - Secondary air injection pump motor -V101-
- 3 - EVAP canister purge regulator valve 1 -N80-
- 4 - Crankcase ventilation shut-off valve -N548-
- 5 - Coolant recirculation pump -V50-
- 6 - Brake booster pressure sensor -G294-
- 7 - Accelerator pedal position sensor -G79-
- 7 - Accelerator pedal position sensor 2 -G185-
- 8 - Brake lamp switch -F-
- 9 - Engine control module -J623
- 10 - Charge air cooling pump -V188-
- 11 - Intake manifold runner position sensor 2 -G512-



1.4.2 3.0L TFSI CREC Top

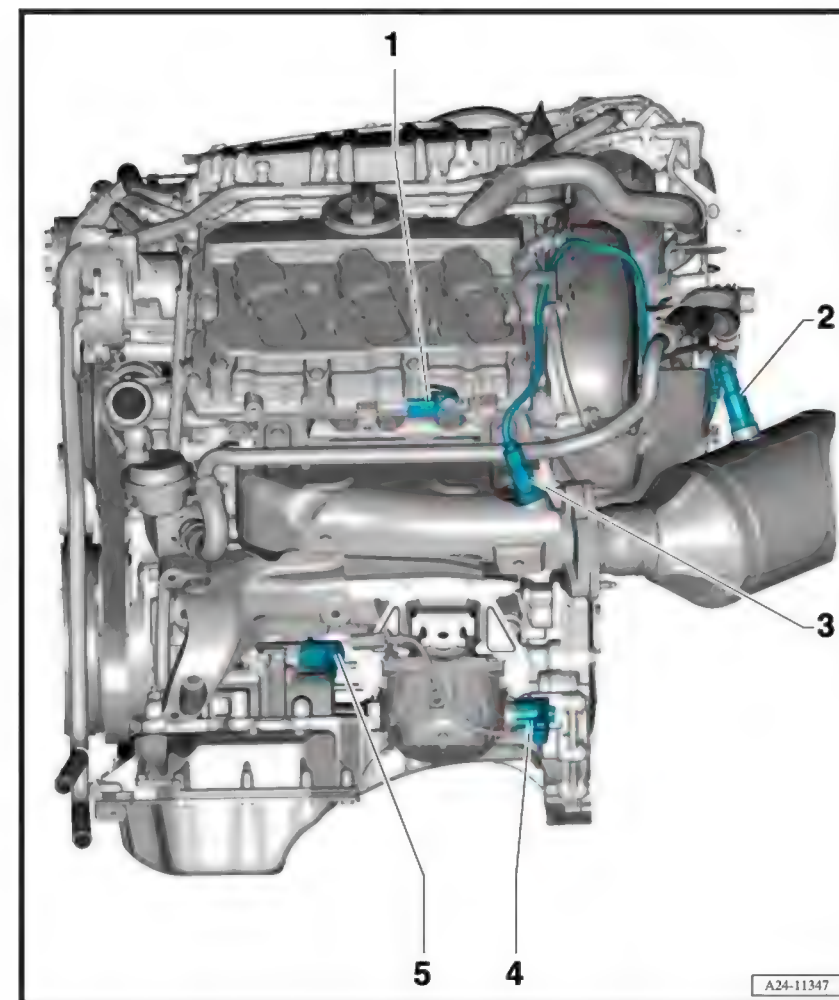
- 1 - Ignition Coils
- 2 - Exhaust camshaft adjustment valve 1 -N318-
- 3 - Camshaft adjustment valve 1 -N205-
- 4 - Fuel injectors
- 5 - Knock sensor 1 -G61-
- 6 - Knock sensor 2 -G66-
- 7 - Oil pressure switch -F22-
- 8 - Reduced oil pressure switch -F378-
- 9 - Fuel injectors
- 10 - Camshaft adjustment valve 2 -N208-
- 11 - Exhaust camshaft adjustment valve 2 -N319-
- 12 - Ignition coils
- 13 -
Cylinder 4 fuel injector 2 -N535-
- 13 -
Cylinder 5 fuel injector 2 -N536-
- 13 -
Cylinder 6 fuel injector 2 -N537-
- 14 - Camshaft position sensor 2 -G163-
- 15 - Fuel pressure sensor -G247-
- 16 - Low fuel pressure sensor -G410-
- 17 - Engine temperature control sensor -G694-
- 18 - Engine coolant temperature sensor -G62-
- 19 - Camshaft position sensor -G40-
- 20 -
Cylinder 1 fuel injector 2 -N532-
- 20 -
Cylinder 2 fuel injector 2 -N533-
- 20 -
Cylinder 3 fuel injector 2 -N534-



1.4.3 3.0L TFSI CREC Left Side

- 1 - Camshaft position sensor 4 -G301-
- 2 - Oxygen sensor 2 after catalytic converter G131
- 3 - Heated oxygen sensor 2 G108
- 4 - Left electrohydraulic engine mount solenoid valve -N144-
- 5 - Oil pressure regulation valve -N428-

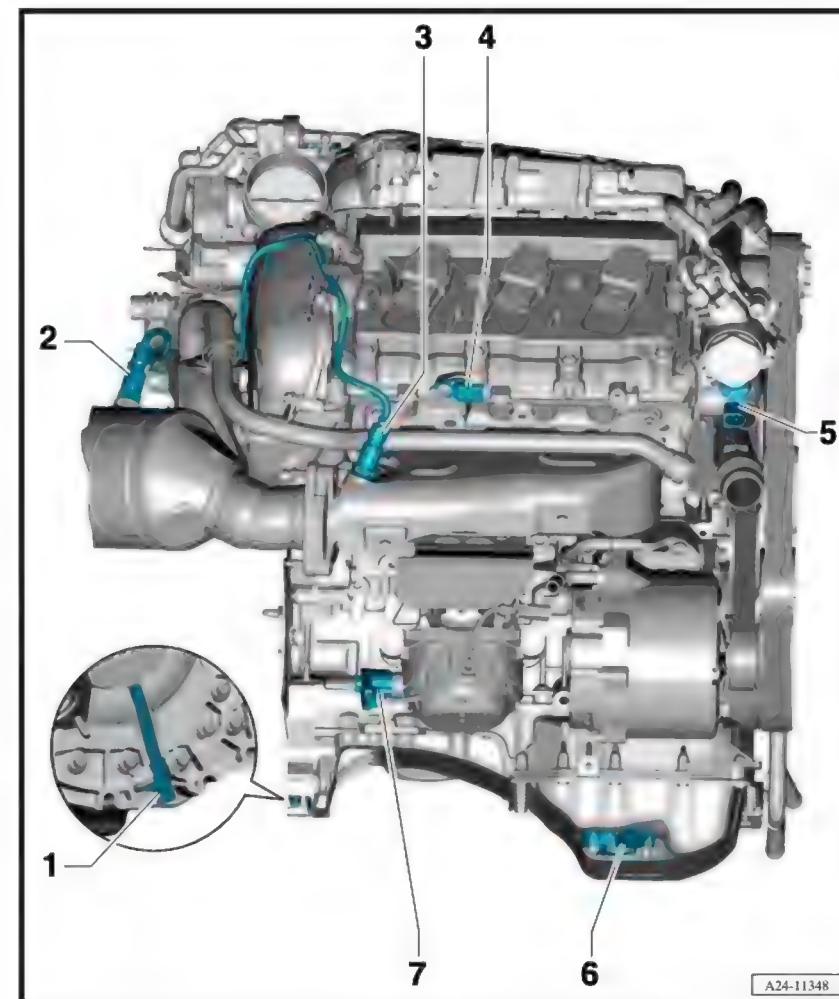
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG



1.4.4 3.0L TFSI CREC Right Side

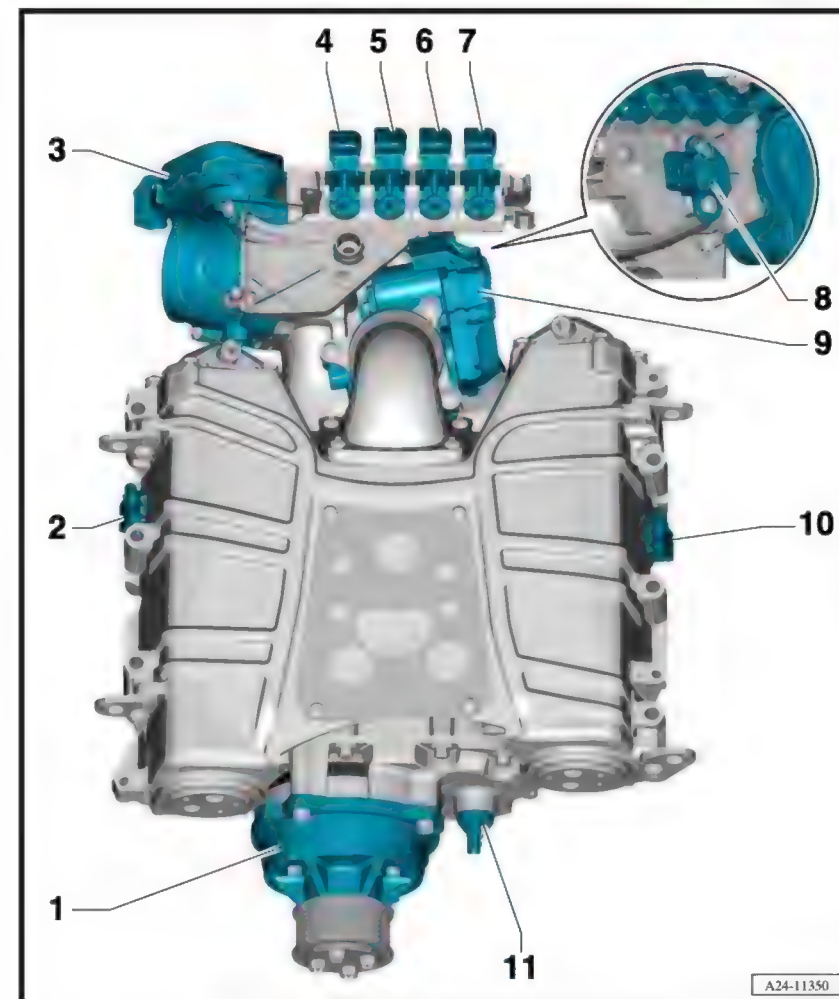
- 1 - Engine speed sensor -G28-
- 2 - Oxygen sensor after three way catalytic converter G130
- 3 - Heated oxygen sensor G39
- 4 - Camshaft position sensor 3 -G300-
- 5 - Fuel metering valve -N290-
- 6 - Oil level thermal sensor -G266-
- 7 - Right electrohydraulic engine mount solenoid valve -N145-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG



1.4.5 3.0L TFSI CREC Supercharger Top

- 1 - Compressor magnetic clutch -N421-
- 2 - Charge air pressure sensor -G31-
- 3 - Throttle valve control module -J338-
- 3 - EPC throttle drive -G186-
- 3 - EPC throttle drive angle sensor 1 -G187-
- 3 - EPC throttle drive angle sensor 2 -G188-
- 3 - Throttle valve control module -GX3-
- 4 - Engine oil cooler valve -N554-
- 5 - Cooling circuit solenoid valve -N492-
- 6 - Intake manifold runner control valve -N316-
- 7 - Secondary air injection solenoid valve -N112-
- 8 - Intake air temperature sensor -G42-
- 8 - Manifold absolute pressure sensor -G71-
- 9 - Control valve control unit -J808-
- 9 - Control door adjustment motor -V380-
- 9 - Control valve position sensor -G584-
- 10 - Charge air pressure sensor 2 -G447-
- 11 - Turbocharger speed sensor 1 -G688-

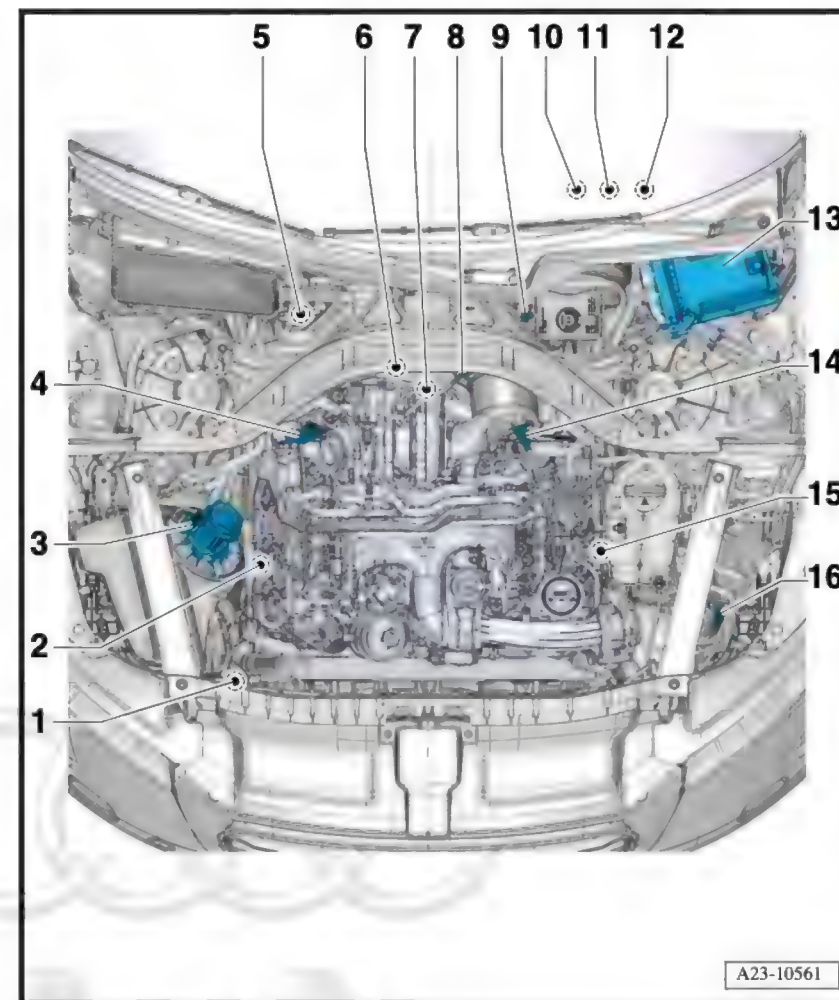


1.5 3.0L TDI CPNB Overview

- ◆ ⇒ ["1.5.1 3.0L TDI CPNB Engine Comp.", page 19](#)
- ◆ ⇒ ["1.5.2 3.0L TDI CPNB Top", page 19](#)
- ◆ ⇒ ["1.5.3 3.0L TDI CPNB Front", page 20](#)
- ◆ ⇒ ["1.5.4 Reducing Agent assembly", page 21](#)

1.5.1 3.0L TDI CPNB Engine Comp.

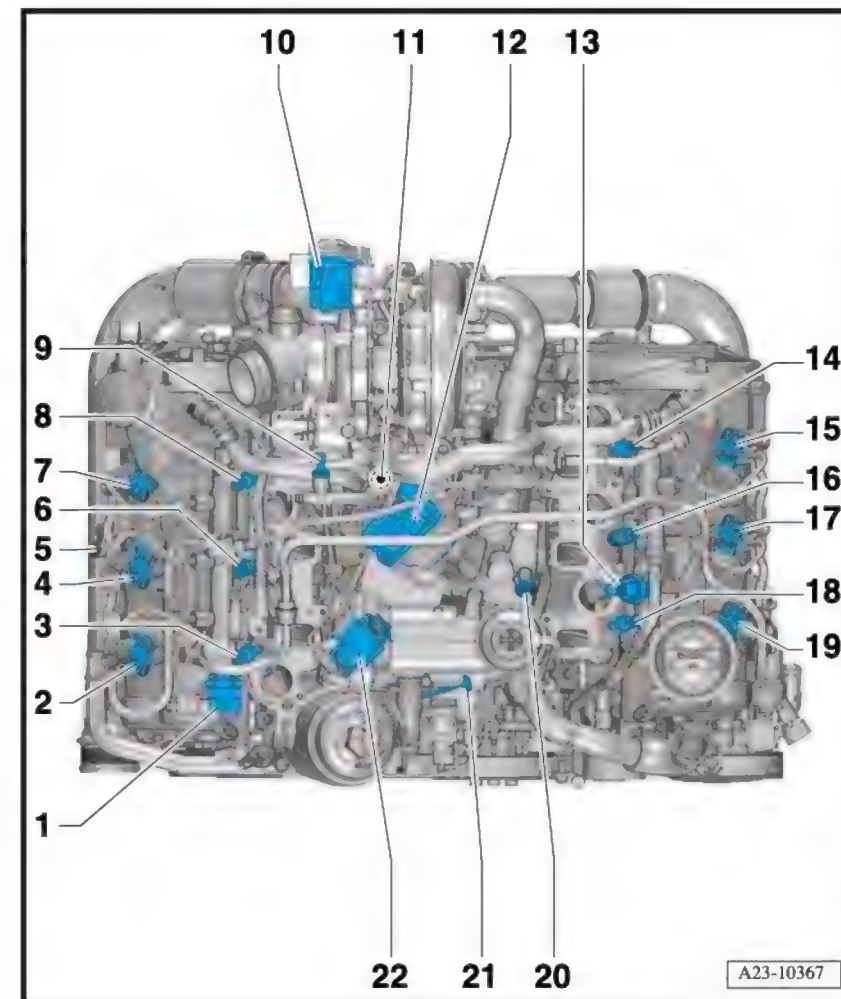
- 1 - Engine coolant temperature sensor on radiator outlet -G83-
- 2 - Right electrohydraulic engine mount solenoid valve -N145-
- 3 - Mass airflow sensor -G70-
- 4 - Differential pressure sensor -G505-
- 5 - Exhaust gas temperature sensor 4 -G648-
- 6 - Engine speed sensor -G28-
- 7 - Exhaust gas temperature sensor 1 -G235-
- 8 - Exhaust gas temperature sensor 3 -G495-
- 9 - Brake booster pressure sensor -G294-
- 10 - Accelerator pedal position sensor -G79-
- 10 - Accelerator pedal position sensor 2 -G185-
- 11 - Instrument cluster control module J285
- 12 - Brake lamp switch -F-
- 13 - Engine control module J623
- 14 - Heated oxygen sensor G39
- 14 - Oxygen sensor heater Z19
- 15 - Left electrohydraulic engine mount solenoid valve -N144-
- 16 - Charge air pressure sensor -G31-
- 16 - Intake air temperature sensor -G42-



1.5.2 3.0L TDI CPNB Top

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- 1 - Fuel pressure regulator valve -N276-
- 2 - Cylinder 1 Fuel Injector -N30-
- 3 - Glow Plug 1 -Q10-
- 4 - Cylinder 2 Fuel Injector -N31-
- 5 - Camshaft position sensor -G40-
- 6 - Glow Plug 2 -Q11-
 - ❑ Cylinder 2 Combustion Chamber Pressure Sensor -G678- may be installed in cylinder 2 depending on the exhaust gas standards
- 7 - Cylinder 3 Fuel Injector -N32-
- 8 - Glow Plug 3 -Q12-
- 9 - Fuel temperature sensor -G81-
- 10 - Turbocharger control module 1 -J724-
- 11 - Fuel metering valve -N290-
- 12 - EGR motor -V338-
- 13 - Fuel pressure sensor -G247-
- 14 - Glow Plug 6 -Q15-
- 15 - Cylinder 6 Fuel Injector -N84-
- 16 - Glow Plug 5 -Q14-
- 17 - Cylinder 5 Fuel Injector -N83-
- 18 - Glow Plug 4 -Q13-
- 19 - Cylinder 4 Fuel Injector -N33-
- 20 - Engine coolant temperature sensor -G62-
- 21 - EGR temperature sensor -G98-
- 22 - Cylinder head coolant valve -N489-

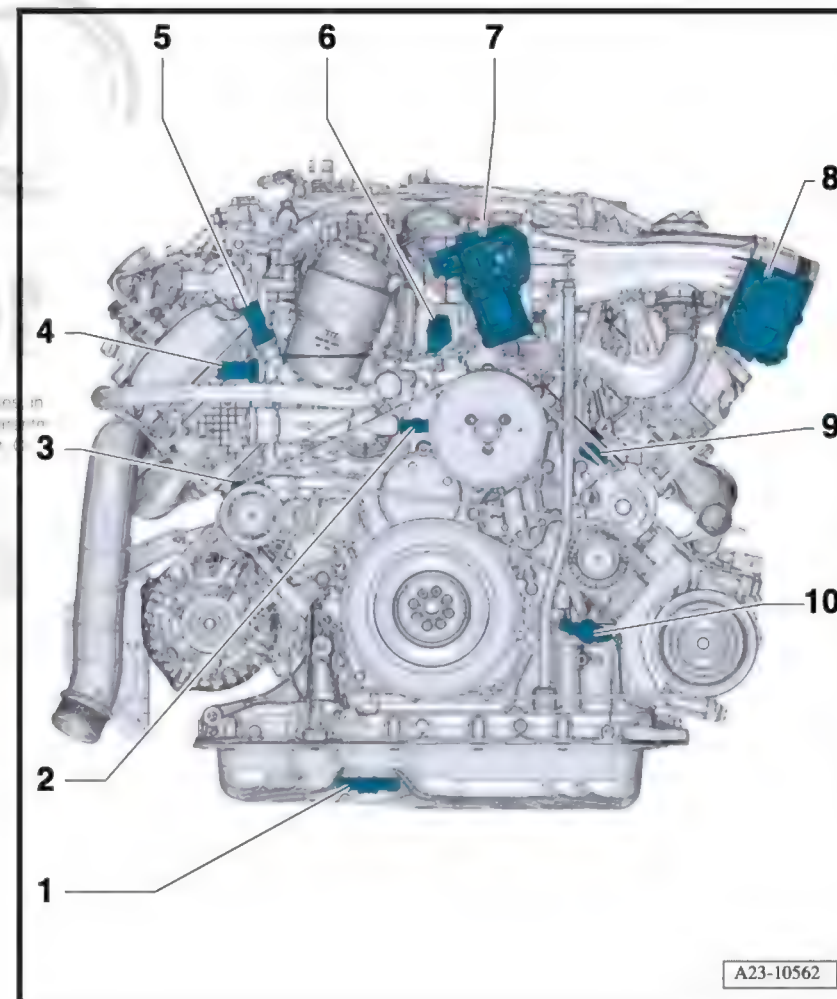


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG

1.5.3 3.0L TDI CPNB Front

- 1 - Oil level thermal sensor -G266-
- 2 - Map controlled engine cooling thermostat -F265-
- 3 - Oil temperature sensor 2 -G664-
- 4 - Oil pressure switch -F22-
- 5 - Reduced oil pressure switch -F378-
- 6 - EGR cooler switch-over valve -N345-
- 7 - Intake flap motor -V157-
- 8 - Throttle valve control module -J338-
- 9 - Engine temperature control sensor -G694-
- 10 - Oil pressure regulation valve -N428-

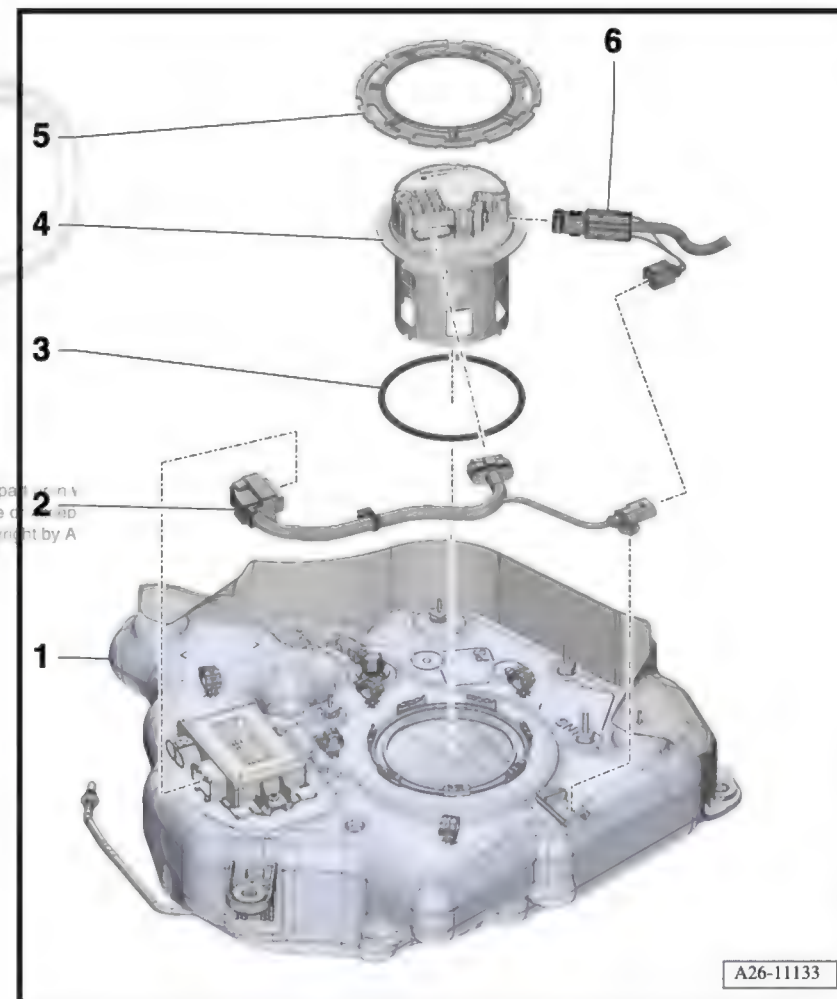
Protected by copyright. Copying for private or commercial purposes in print or electronic form without the written permission of Audi AG is prohibited. Audi AG does not accept any liability for errors or omissions in this document.



1.5.4 Reducing Agent assembly

- 2 - Reducing agent metering system control module -J880- , connector
- 4 - Reducing agent pump -V437-
- 4 - Reducing agent metering system pressure sensor -G686-
- 4 - Reducing agent reservoir sensor -G697-
- 4 - Reducing agent temperature sensor -G685-
- 4 - Reducing agent tank heater (heating circuit 1) -Z102-

Protected by copyright. Copying for private or commercial purposes, in part or in full, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee the accuracy of the information with respect to the correctness of information in this document. Copyright by Audi AG



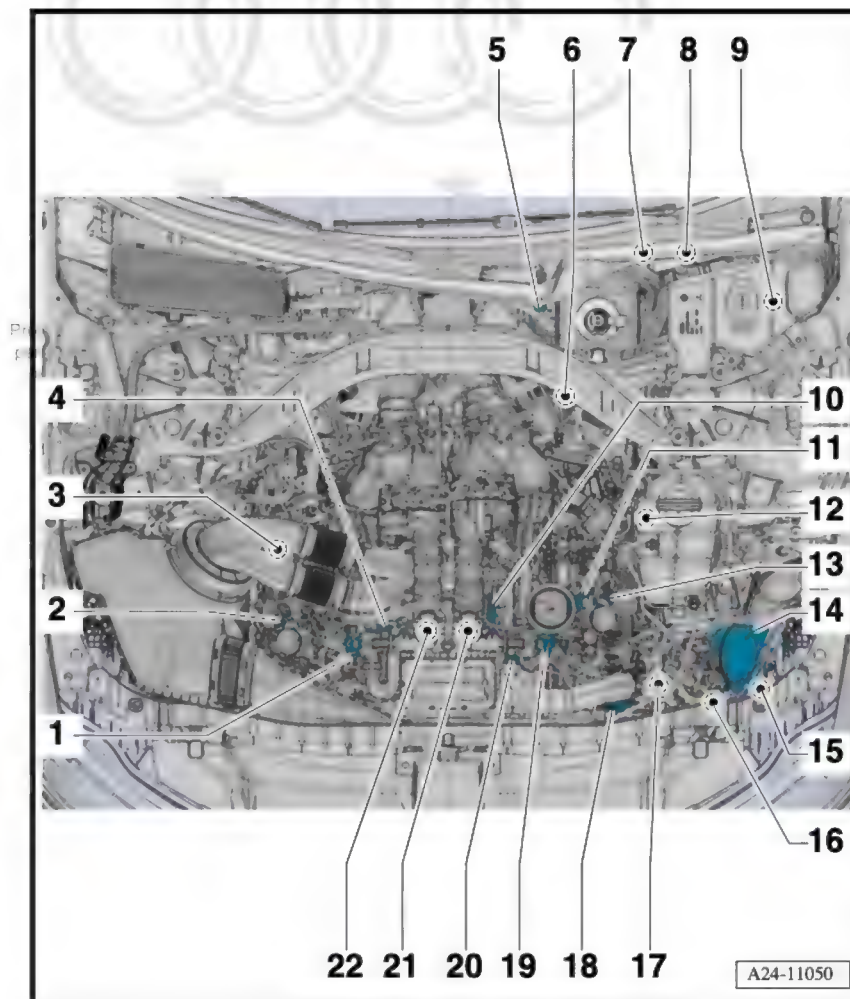
1.6 4.0L FSI CEUC/CTGE/CWUC Overview

- ◆ ⇒ ["1.6.1 4.0L FSI CEUC/CTGE/CWUC Engine Comp.", page 23](#)
- ◆ ⇒ ["1.6.2 4.0L FSI CEUC/CTGE/CWUC Top ", page 23](#)
- ◆ ⇒ ["1.6.3 4.0L FSI CEUC/CTGE/CWUC Front ", page 24](#)
- ◆ ⇒ ["1.6.4 4.0L FSI CEUC/CTGE/CWUC Right ", page 25](#)

◆ ⇒ "1.6.5 4.0L FSI CEUC/CTGE/CWUC Left", page 26

1.6.1 4.0L FSI CEUC/CTGE/CWUC Engine Comp.

- 1 - Turbocharger recirculation valve -N249-
- 2 - Fuel metering valve -N290-
- 3 - Subframe mount sensor 1 -G748-
- 3 - Subframe mount actuator 1 -N513-
- 4 - Charge air pressure sensor -G31-
- 5 - Brake booster pressure sensor -G294-
- 6 - Transmission fluid cooling valve -N509-
- 6 - Transmission coolant valve -N488-
- 9 - Engine control module J623
- 10 - Throttle valve control module -J338-
- 11 - Low fuel pressure sensor -G410-
- 12 - Subframe mount actuator 2 -N514-
- 12 - Subframe mount sensor 2 -G749-
- 13 - Fuel metering valve 2 -N402-
- 14 - Secondary air injection pump motor -V101-
- 15 - After-run coolant pump -V51-
- 16 - Charge air cooling pump -V188-
- 17 - Engine coolant temperature sensor on radiator -G83-
- 18 - Secondary air injection sensor 1 -G609-
- 19 - Bank 2 turbocharger recirculation valve -N427-
- 20 - Charge air pressure sensor 2 -G447-
- 21 - Charge air cooler temperature sensor 2 -G764-
- 22 - Charge air cooler temperature sensor 1 -G763-

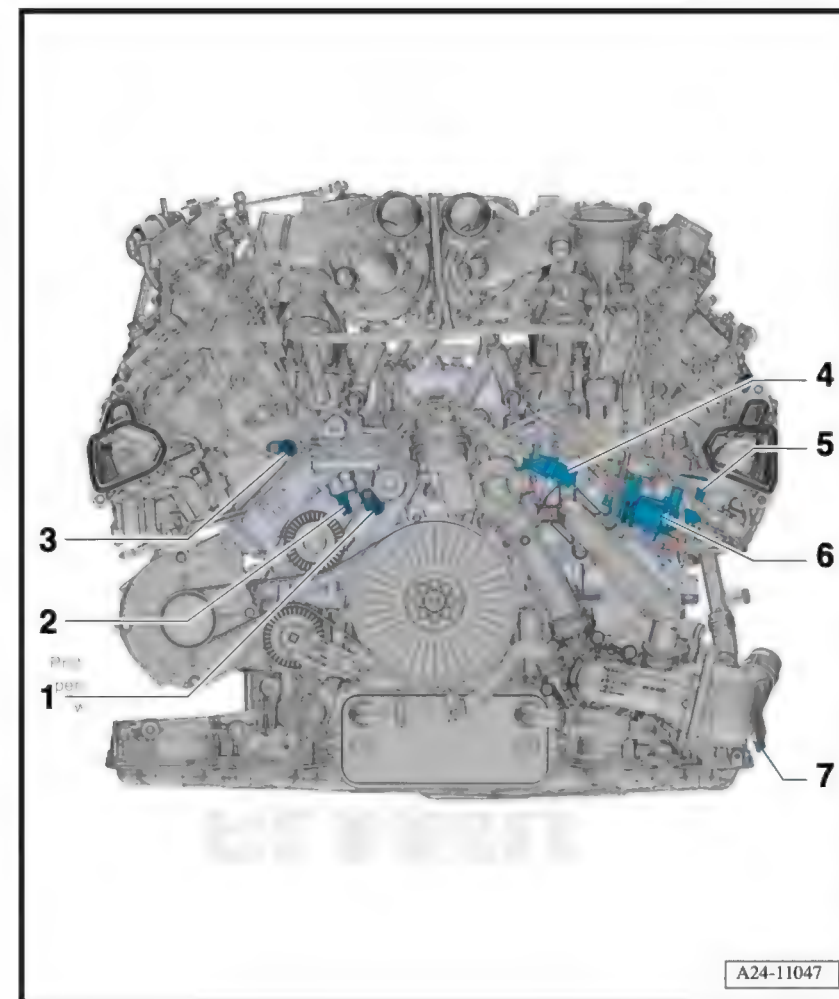


1.6.2 4.0L FSI CEUC/CTGE/CWUC Top

-
- This diagram shows an exploded view of a 12-cylinder engine, likely from a Boeing 787 Dreamliner. The engine is oriented horizontally with the front (nose) to the left. The main components are labeled with numbers 1 through 17:
- 1:** Main engine case or nacelle structure.
 - 2:** Inlet guide vanes (IGVs) at the front of the compressor.
 - 3:** Compressor inlet ducts.
 - 4:** Compressor inlet guide vanes.
 - 5:** Compressor inlet ducts.
 - 6:** Compressor inlet guide vanes.
 - 7:** Compressor inlet ducts.
 - 8:** Compressor inlet guide vanes.
 - 9:** Compressor inlet ducts.
 - 10:** Compressor inlet guide vanes.
 - 11:** Compressor inlet ducts.
 - 12:** Compressor inlet guide vanes.
 - 13:** Compressor inlet ducts.
 - 14:** Compressor inlet guide vanes.
 - 15:** Compressor inlet ducts.
 - 16:** Compressor inlet guide vanes.
 - 17:** Compressor inlet ducts.

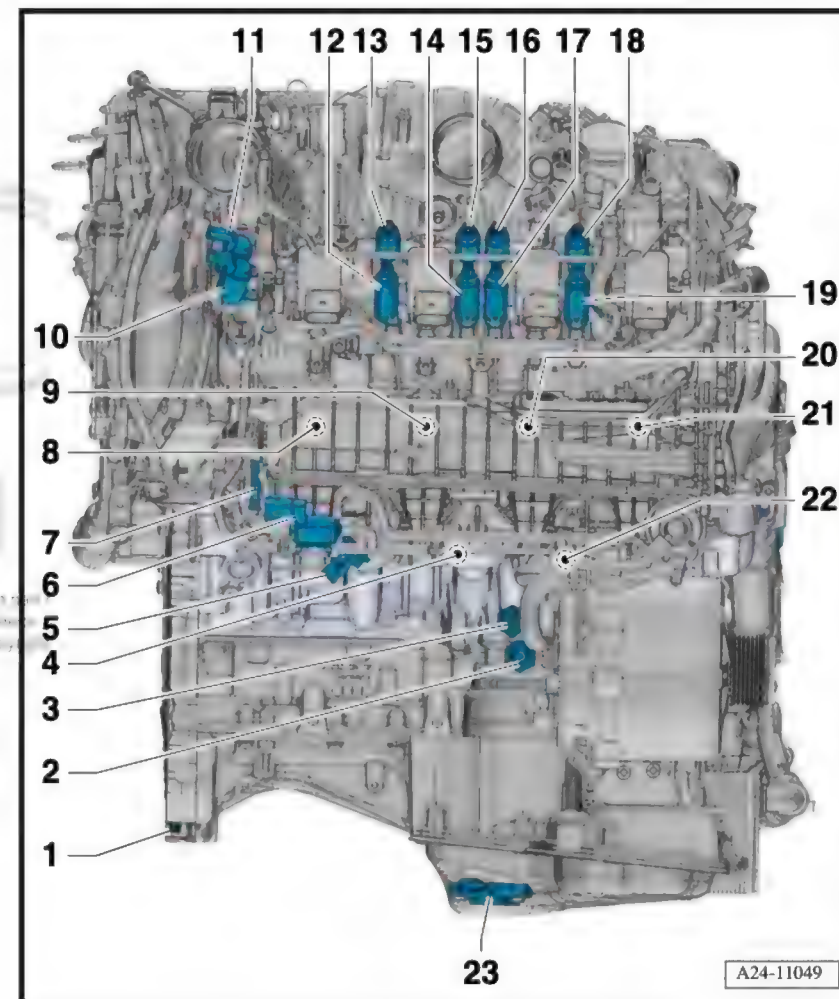
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted. Audi AG assumes no liability for the content of this document. Copyright by Audi AG with respect to the correctness of information in this document. Copyright by Audi AG

- 1 - Oil temperature sensor 2 -G664-
- 2 - Engine coolant temperature sensor -G62-
- 3 - Engine temperature control sensor -G694-
- 4 - Cylinder head coolant valve -N489-
- 5 - Intake manifold runner position sensor 2 -G512-
- 6 - Wastegate bypass regulator valve -N75-
- 7 - Map controlled engine cooling thermostat -F265-



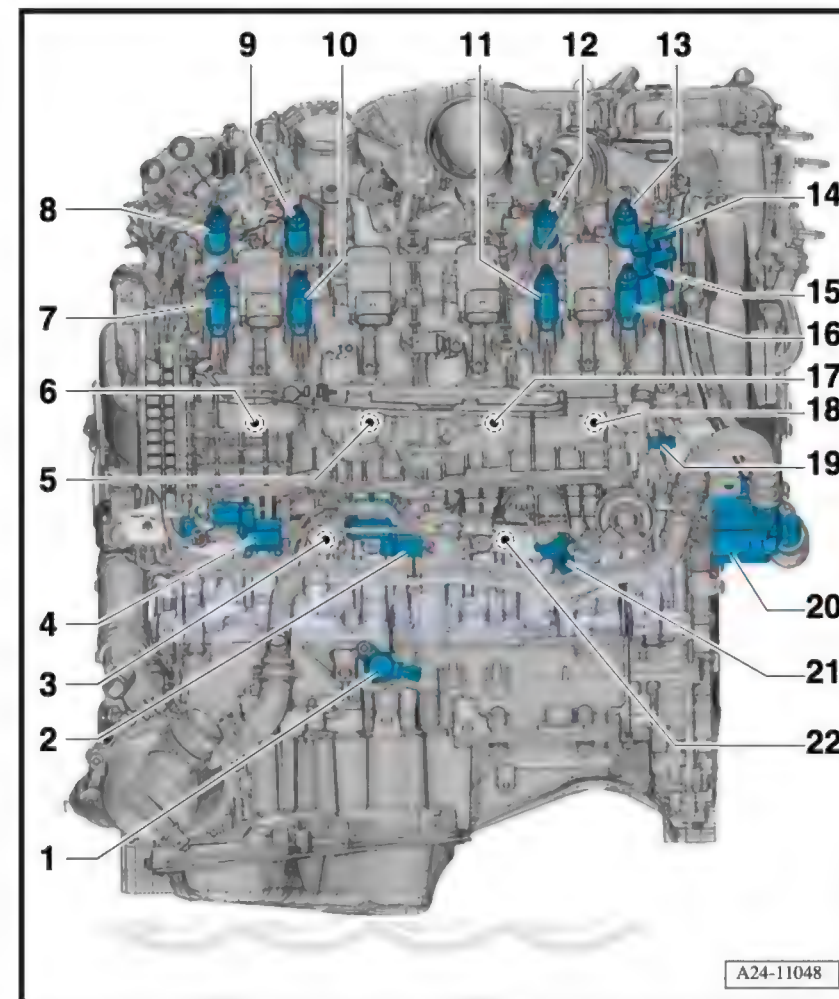
1.6.4 4.0L FSI CEUC/CTGE/CWUC Right

- 1 - Engine speed sensor -G28-
- 2 - Reduced oil pressure switch -F378-
- 3 - Oil pressure switch -F22-
- 4 - Knock sensor 2 -G66-
- 5 - Fuel pressure sensor -G247-
- 6 - Intake manifold runner control valve -N316-
- 7 - Intake manifold runner position sensor -G336-
- 10 - Camshaft adjustment valve 1 -N205-
- 11 - Exhaust camshaft adjustment valve 1 -N318-
- 12 - Intake camshaft adjuster 2 for cylinder 3 -F457-
- 13 - Exhaust camshaft adjuster 2 for cylinder 3 -F459-
- 14 - Intake camshaft adjuster 1 for cylinder 3 -F456-
- 15 - Exhaust camshaft adjuster 1 for cylinder 3 -F458-
- 16 - Exhaust camshaft adjuster 1 for cylinder 2 -F454-
- 17 - Intake camshaft adjuster 1 for cylinder 2 -F452 -
- 18 - Exhaust camshaft adjuster 2 for cylinder 2 -F455-
- 19 - Intake camshaft adjuster 2 for cylinder 2 -F453-
- 22 - Knock sensor 1 -G61-
- 23 - Oil level thermal sensor -G266-



1.6.5 4.0L FSI CEUC/CTGE/CWUC Left

- 1 - Oil pressure regulation valve -N428-
- 2 - Secondary air injection solenoid valve -N112-
- 3 - Knock sensor 3 -G198-
- 4 - Secondary air injection solenoid valve 2 -N320-
- 7 - Intake camshaft adjuster 2 for cylinder 5 -F465-
- 8 - Exhaust camshaft adjuster 2 for cylinder 5 -F467-
- 9 - Exhaust camshaft adjuster 1 for cylinder 5 -F466-
- 10 - Intake camshaft adjuster 1 for cylinder 5 -F464-
- 11 - Intake camshaft adjuster 2 for cylinder 8 -F477-
- 12 - Exhaust camshaft adjuster 1 for cylinder 8 -F478-
- 13 - Exhaust camshaft adjuster 2 for cylinder 8 -F479-
- 14 - Exhaust camshaft adjustment valve 2 -N319-
- 15 - Camshaft adjustment valve 2 -N208-
- 16 - Intake camshaft adjuster 1 for cylinder 8 -F476-
- 19 - Intake air temperature sensor -G42-
- 20 - Engine coolant circulation pump 2 -V178-
- 21 - Fuel pressure sensor 2 -G624-
- 22 - Knock sensor 4 -G199-



1.7 Exhaust System

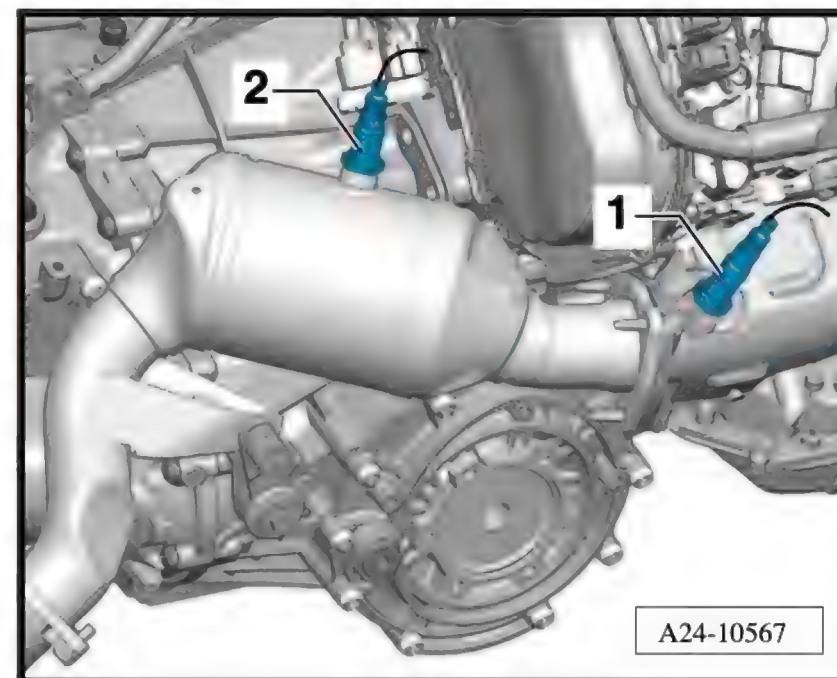
- ◆ ⇒ ["1.7.6 2.0L TFSI CAEB/CAED ", page 32](#)
- ◆ ⇒ ["1.7.4 2.0L TFSI GEN III CYNB ", page 30](#)
- ◆ ⇒ ["1.7.1 3.0L TFSI CGXB/CTUA Part, I", page 28](#)
- ◆ ⇒ ["1.7.2 3.0L TFSI CGXB/CTUA Part, II", page 28](#)

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with regard to the correctness of information in this document. Copyright by AUDI AG.

- ◆ ⇒ ["1.7.3 3.0L TFSI CREC ", page 29](#)
- ◆ ⇒ ["1.7.5 3.0L TDI CPNB ", page 31](#)
- ◆ ⇒ ["1.7.7 4.0L FSI CEUC/CTGE/CWUC ", page 33](#)

1.7.1 3.0L TFSI CGXB/CTUA Part, I

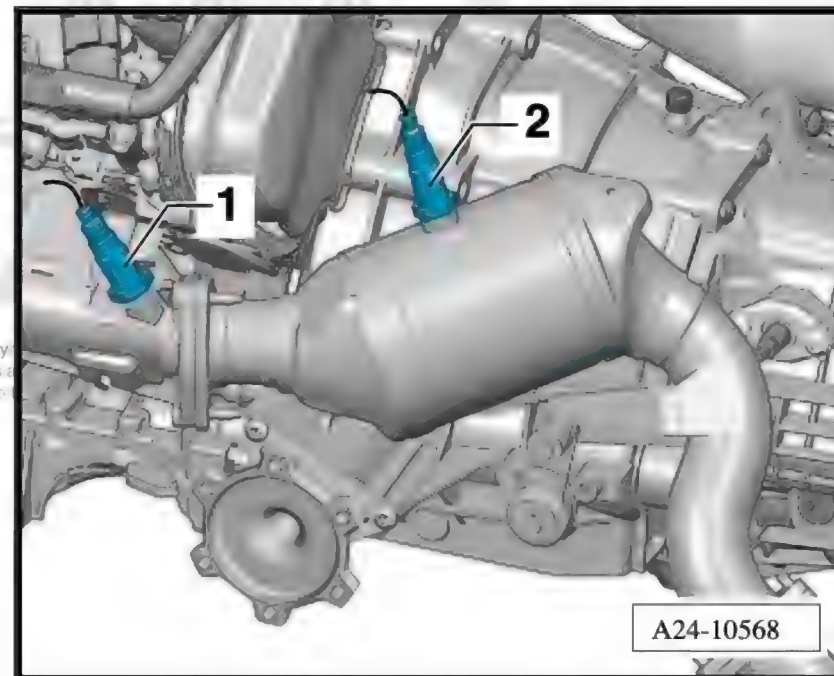
- 1 - Heated oxygen sensor -G39-
- 1 - Oxygen sensor heater -Z19-
- 2 - Oxygen sensor after three way catalytic converter -G130-
- 2 - heater for oxygen sensor 1 after catalytic converter -Z29-



1.7.2 3.0L TFSI CGXB/CTUA Part, II

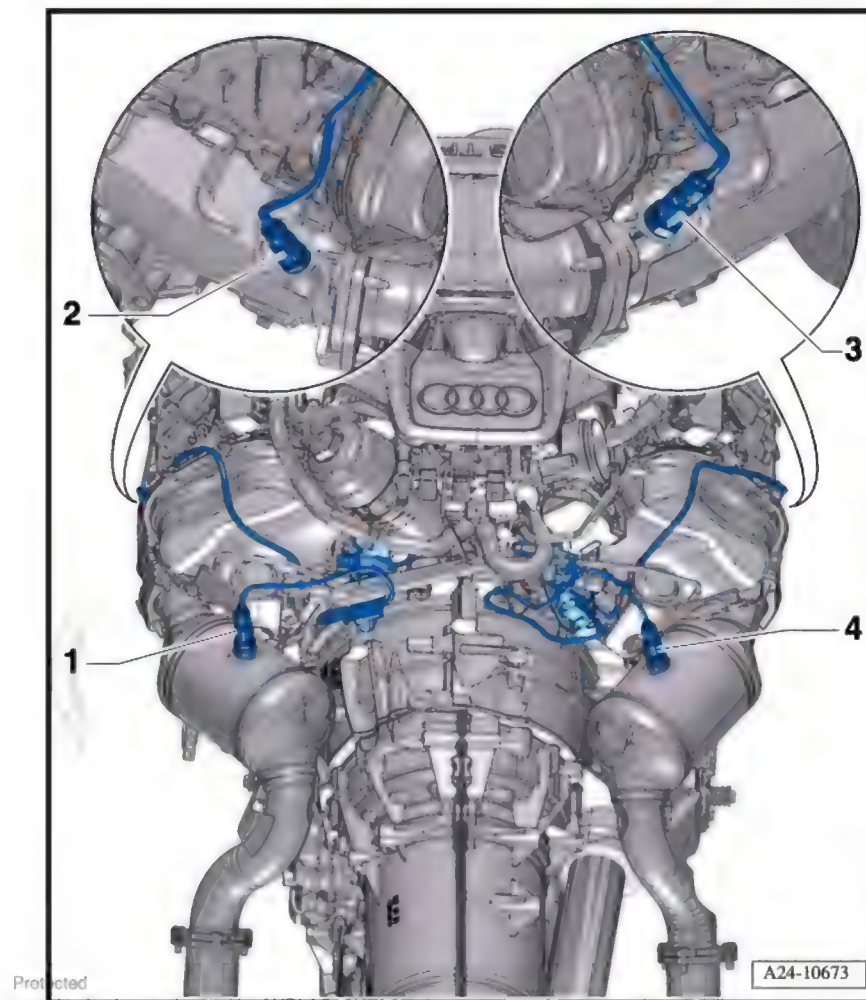
- 1 - Heated oxygen sensor 2 -G108-
- 1 - Oxygen sensor 2 heater -Z28-
- 2 - Oxygen sensor 2 after catalytic converter -G131-
- 2 - heater for oxygen sensor 2 after catalytic converter -Z30-

Protected by copy
permitted unless
with respect to



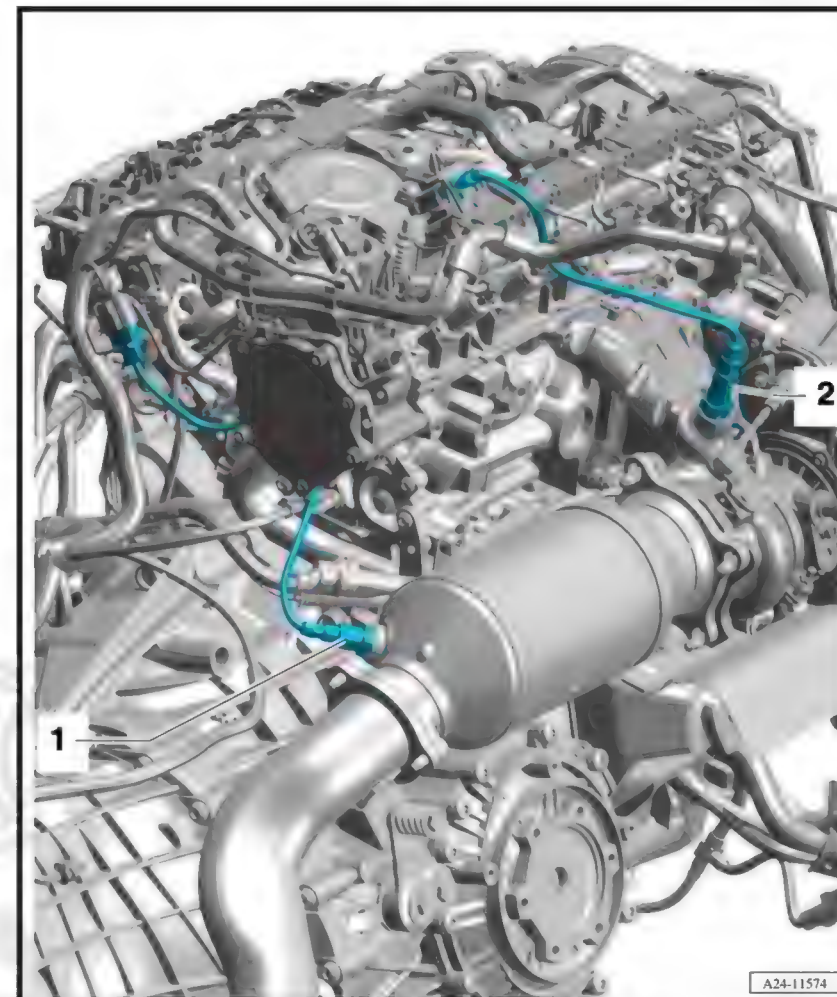
1.7.3 3.0L TFSI CREC

- 1 - Oxygen sensor 2 after catalytic converter -G131-
- 1 - Heater for oxygen sensor 2 after catalytic converter -Z30-
- 2 - Heated oxygen sensor 2 -G108-
- 2 - Oxygen sensor 2 heater -Z28-
- 3 - Heated oxygen sensor -G39-
- 3 - Oxygen sensor heater -Z19-
- 4 - Oxygen sensor after three way catalytic converter -G130-
- 4 - Heater for oxygen sensor 1 after catalytic converter -Z29-



1.7.4 2.0L TFSI GEN III CYNB

- 1 - Oxygen sensor after three way catalytic converter -G130-
- 1 - Heater for oxygen sensor 1 after catalytic converter -Z29-
- 2 - Heated oxygen sensor -G39-
- 2 - Oxygen sensor heater -Z19-

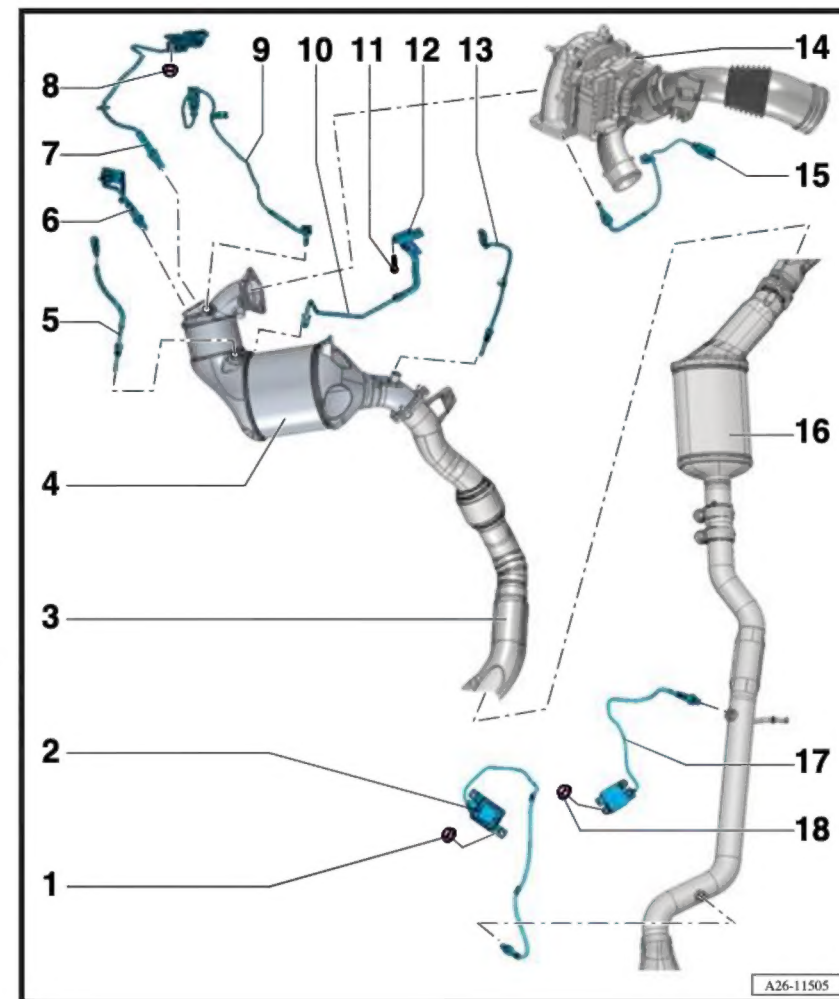


1.7.5 3.0L TDI CPNB

Product design and specifications are subject to change without notice. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG

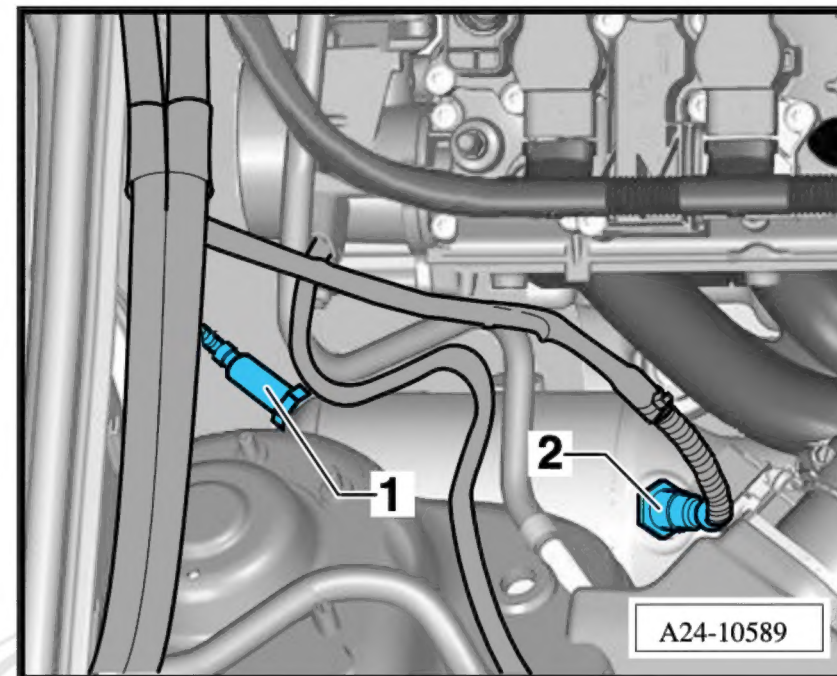
- 2 - NOx sensor control module 2 -J881-
- 2 - NOx sensor 2 -G687-
- 5 - Exhaust gas temperature sensor 3 -G495-
- 6 - Heated oxygen sensor -G39-
- 6 - Oxygen sensor heater -Z19-
- 7 - NOx sensor control module -J583-
- 7 - NOx sensor -G295-
- 9 - Exhaust gas temperature sensor 2 -G448-
- 10 - Exhaust pressure sensor 1 -G450-
- 12 - Differential pressure sensor -G505-
- 13 - Exhaust gas temperature sensor 4 -G648-
- 15 - Exhaust gas temperature sensor 1 -G235-
- 17 - Particulate sensor -G784-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



1.7.6 2.0L TFSI CAEB/CAED

- 1 - Oxygen sensor after three way catalytic converter -G130-
- 1 - Heater for oxygen sensor 1 after catalytic converter -Z29-
- 2 - Heated oxygen sensor -G39-
- 2 - Oxygen sensor heater -Z19-

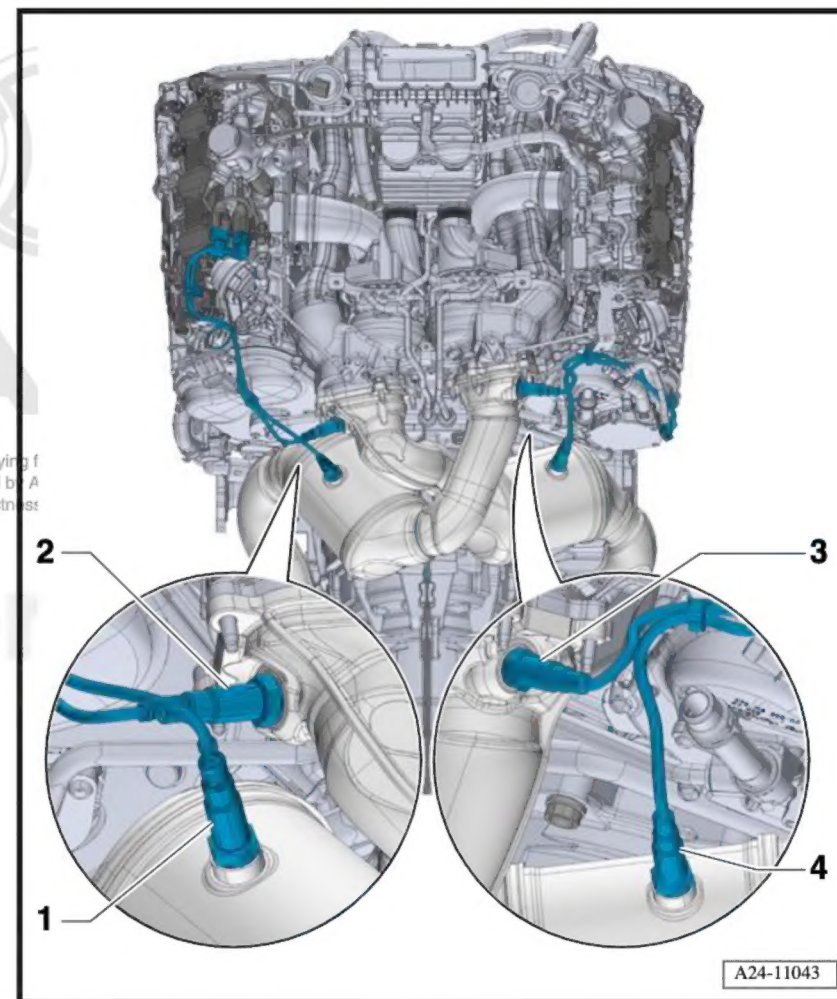


1.7.7 4.0L FSI CEUC/CTGE/CWUC

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- 1 - Oxygen sensor after three way catalytic converter -G130-
- 1 - Heater for oxygen sensor 1 after catalytic converter -Z29-
- 2 - Heated oxygen sensor 2 -G108-
- 2 - Oxygen sensor 2 heater -Z28-
- 3 - Heated oxygen sensor -G39-
- 3 - Oxygen sensor heater -Z19-
- 4 - Oxygen sensor 2 after catalytic converter -G131-
- 4 - Heater for oxygen sensor 2 after catalytic converter -Z30-

Protected by copyright. Copying is
permitted unless authorised by Audi AG
with respect to the correctness



1.8 Fuel Pump and Sensors

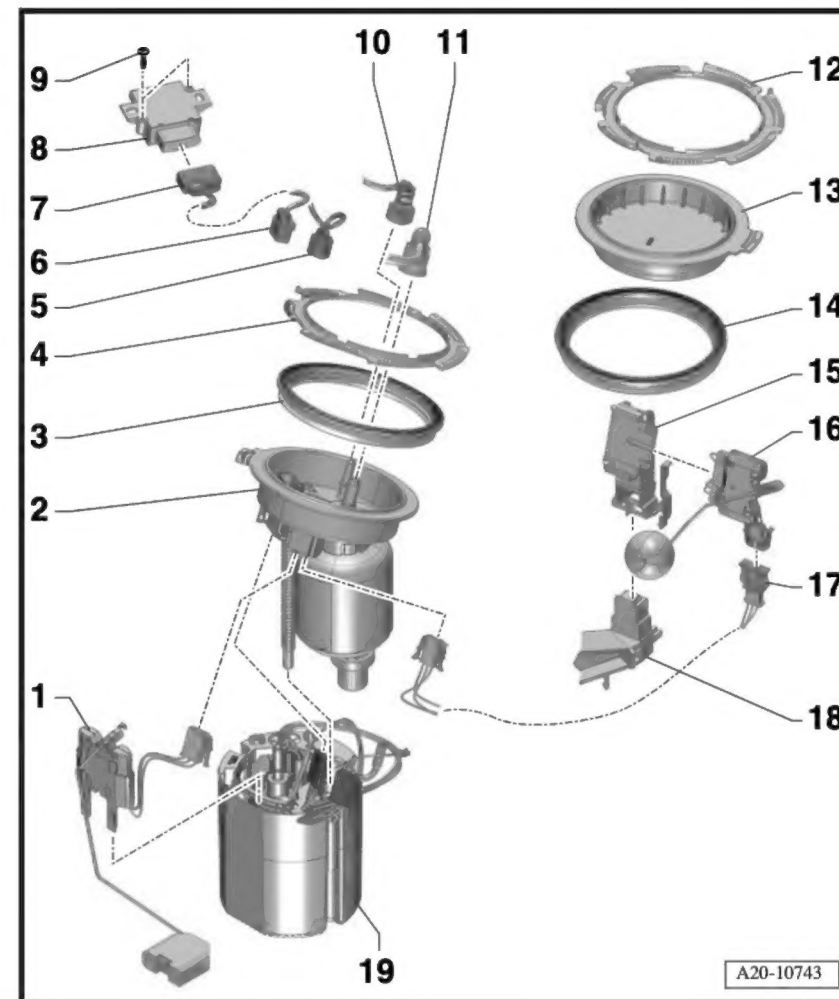
1 - Fuel level sensor -G-

5 - Electrical connector for Fuel level sensor G

8 - Fuel pump control module - J538

16 - Fuel level sensor 2 -G169-

19 - Fuel delivery unit with Transfer fuel pump -G6-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

